The Cavendish Lecture
ON
DREAMY MENTAL STATES.

Delivered before the West London Medico-Chirurgical Society on June 20th, 1895,

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WE have all heard of these strange sensations and impulses, psychical reflexes, which have led to suicide by precipitation under such circumstances, and of the fascination which has caused bystanders to yearn to throw themselves in front of a swiftly passing train, and we may perhaps discover in these phenomena analogues of dreamy mental states. A friend of Arthur Hugh Clough once told me that on one occasion on which the poet was visiting him in Wales he took him for a walk and conducted him to a grassy slope terminating in a wall which formed the parapet of a huge cliff, with a sheer descent of three or four hundred feet. The wall, a rough stone one, looked simply the boundary of a field, and no one approaching it on the landward side could have any conception of what lay beyond it. The poet, being brought up to the wall, was asked to look over it, and on doing so had suddenly disclosed to him the beetling promontory, the wrinkled ocean beneath, and the circling flakes of white sea birds between, and with a very startling effect. He fell back on the grass pale and shivering, and exclaimed, "Oh, my God! what a fearful sight!" and then turned and said to his friend, "My life seems shrivelled up before me. For Heaven's sake give me some brandy!" But there was no brandy to be had, for the nearest house was four miles off, so nothing could be done for him in his distress but to sprinkle his face with water. He lay on the grass for half an hour ghastly and sick, like a man at the point of death, and it was then only with the utmost difficulty that he was helped to a farm where stimulants were procured for him. Never afterwards would he permit any conversation about that vision of the sea; he shuddered when any reference was made to it.

This height-terror of Clough, induced by visual impressions of a special kind, recalls one phase of the dreamy mental state, that in which it reaches supreme terror with physical prostration; but a closer analogy to that state is perhaps to be found in the thoughts which arise during the inhalation of certain anæsthetics, and notably of nitrous oxide gas—thoughts which are nebular and voluminous, but which have never in them any tinge of fear or alarm, but are always inflated and exhilarating. When nitrous oxide gas is breathed in the pure state it abolishes volition and consciousness so rapidly that it is not possible for the person breathing it to observe distinct stages in its triumph over him; but when it is inhaled diluted with air its successive effects may be and have been many times marked and recorded. A momentary sense of suffocation accompanying hurried breathing is followed by feelings of fulness in the head, fixedness in the eyes, and increased resistance in the feet, suggesting that they are on the point of acting involuntarily in throwing the body forward; after these come giddiness and inability to maintain equilibrium, thrilling and vibrating sensations throughout the body, impairment of the power of accommodation in the eyes, and increased acuteness in the sense of hearing, so that distant and otherwise faintly heard sounds are judged to be near at hand; and then come the mental symptoms, which consist in convictions of emancipation, relief, and happiness, in grand and sublime ideas, which in their expansion seem to break down all barriers of doubt and difficulty, and to make a wish and its realisation one, and which, as they dissolve into delirium and confusion, are accompanied by extreme susceptibility to suggestions from without and automatic movements, such as the rapid repetition of a gesture or the vehement shouting many times over of some word or phrase, symptoms which finally merge into convulsive spasms and complete insensibility. It is at the point where the habitual control or check of the highest centres is withdrawn, and where subordinate centres are free to indulge in unwonted activity, that the expansive dreamy thoughts and exalted feelings present themselves in the progress of nitrous oxide gas intoxication. These thoughts or feelings are probably present in all who inhale the gas, and they are always of an agreeable character, for patients sunk in profound melancholia who have had nitrous oxide gas administered have allowed on their recovery from its effects that they had forgotten their misery for a little, had felt lively and like themselves again, or had even had a foretaste of heaven. But these thoughts and feelings, although always agreeable, vary vastly in character, and range from a simple sense of well-being and enjoyment up to the most magnificent conceptions, their complexion and amplitude being apparently determined a good deal by the personal equation. In persons of average mental calibre they are pleasant and stimulating, but in no way remarkable; but in persons of superior intellectual power they become thrilling and apocalyptic. A working man who inhales the gas intimates on his recovery that he felt very happy, just as if he had had a little too much beer, and a philosopher announces that the secret of the universe had been, for one rapt moment, made plain to him, but only to be swallowed up again in returning consciousness.

The expansive and stupendous nature of the dreamy thoughts induced by nitrous oxide gas in persons of superior and trained intellect is well exemplified in the researches of Sir Humphrey Davy on this gas—researches which, although they were carried out a hundred years ago, have not been surpassed in interest and value by any since made in the same department, even with all the aids of modern scientific apparatus. Describing the effects on himself of long-continued inhalation of the dilute gas Sir Humphrey Davy said: "My emotions were enthusiastic and sublime. I endeavoured to communicate the discoveries made during the experiment, but my ideas were feeble and indistinct; one collection of terms presented itself, and with the most intense belief and prophetic manner I exclaimed, 'Nothing exists but thought; the universe is composed of impressions, ideas, pleasures, and pains.' When I was awakened from this semi-delirious trance indignation and pride were the first feelings produced by the sight of the persons around me." On another occasion Davy remarks: "The sensations were so intense and pure as to absorb existence, and I fell into unconsciousness." But Davy experimented not merely on himself but on his friends with nitrous oxide gas; and as among these friends were Coleridge, Southey, Edgworth, and Dr. Roget we have in their observations the best possible evidence as to the operation of the gas on the mental faculties of men of high intellectual endowment. Well, that evidence is uniformly to the effect that the gas induced delicious feelings and heroic or stupendous thoughts. Indeed, of all anæsthetics nitrous oxide gas seems to be definite and uniform in the emotions and dreamy thoughts it induces in cultivated people, and therefore in the lines and order of its invasion of the higher nerve centres in them. The emotions are always pleasurable, the thoughts are in nine cases out of ten connected with some great discovery, some supposed solution of a cosmic secret. A medical man upon whom my former colleague, Dr. Mitchell, experimented with nitrous oxide gas imagined before becoming unconscious that he had made a most important discovery explaining the whole action of the gas; and Dr. Mitchell himself had repeatedly the same experience, his mind being seized by expansive ideas which, while they lasted, made all dark things clear. So vivid is the impression as to the reality of the ideas met with in the vestibule of nitrous oxide gas anæsthesia, and as to the genuineness of the insight they give, that many attempts have been made by sudden interruptions of the inhalation and by strenuous exertions of will-power to hold and capture them, it need scarcely be said without success. We might as well look for phosphorescence on the sea in the blaze of midday sunshine as hope to reproduce such dreamy mental states in the full light of objective consciousness. Nothing but a vague remembrance that they have flashed across the mind remains when waking life is resumed, and endeavours to recall them or grasp them in passing, when not wholly futile, are apt to prove ludicrous in their results. I daresay many of us recollect the story of the professor who, having experienced a magnificent thought in the early stage of chloroform inhalation, resolved that he would by one bold sally lay hold of it and so read the riddle of the world. Having composed himself in his easy chair in his study,

with writing materials at hand, he inhaled the chloroform, felt the great thought evolve in his mind, roused himself for an instant, seized the pen, wrote desperately he knew not what, for even as he did so he fell back unconscious. On coming to himself he turned eagerly to the paper, to find inscribed on it in sprawling but legible characters the secret of the universe in these words, "A strong smell of turpentine pervades the whole."

In rabbits the inhalation of pure nitrous oxide gas produces after brief excitement plunging convulsions, which have been said to be most marked on the right side and to be accompanied by drawing of the head to the right, but as regards the human subject I have only been able to find one case in which the invasion of the symptoms caused by inhalation was clearly unilateral. In that case the first physical effect noticed was a difficulty in moving the extensor muscles of the left arm, after which there came loss of power over the flexor muscles of the same arm, and then over the muscles of the other arm.

As the effects of asphyxia by submersion in water of an animal or human being are, as regards the higher nerve centres, not very dissimilar from those of the inhalation of an anæsthetic, we should expect to find during drowning some dreamy mental states analogous to those which attend the inhalation of an anæsthetic. And in this respect our expectations would be well founded, for it is even popularly believed that as life ebbs in drowning there is passed before the mind a panoramic review of its whole history, which we shall have no difficulty in recognising as a dreamy mental state. I am aware, of course, that the possibility of this panoramic review has been denied, and that many all but drowned witnesses have borne negative testimony as regards it and have represented their drowning thoughts as being of the most commonplace sort and occupied mainly with the weeds, pebbles, or sand that were seen around. I have no doubt the statements made about it have been greatly exaggerated, and that nothing like a complete picture of life ever passed before the mind under such circumstances; but still I am inclined to believe that very voluminous mental states do generally accompany drowning. The weight of evidence is in favour of them. Sir Francis Beaufort, in a letter published in the autobiography of John Barrow, described what happened to him when he was preserved from being drowned, when "every incident of his former life seemed to glance across his recollection in a retrograde succession, not in mere outline, but the picture being filled with every minute and collateral feature, each act of it accompanied by a sense of right and wrong." And since Beaufort's time many persons rescued from drowning have given an account of their expiring thoughts substantially the same and in harmony with what we are sometimes told of panoramic reminiscences in dreamy mental states. A domestic servant who consulted Dr. Hughlings Jackson, when communicating to him the warning of her epileptic seizures said: "It seems as if I went back to all that occurred in my childhood, as if I see everything so quick and so soon gone that I cannot describe it"; and dreamy mental states, apart from epileptic fits, have been recorded in which the whole coil of past existence seemed to be instantaneously unrolled.

I cannot further pursue what may be called the disguised forms of dreamy mental states, but I think, had I time, I should be able to show you that what used to be known in Scotland as second sight was sometimes only one of these states with a prescient intention.

I have touched upon the transitions which dreamy mental states undergo, on their associations and congeneric conditions, and I should like to say a few words about their consequences or the effects they exert on those who experience them. When they are linked with epilepsy or other serious nervous disease their effects are, of course, merged in those of the graver malady, and when they are an insulated ailment it may be questioned whether they have any effects that are clearly distinguishable. They carry with them, except when occurring while those who experience them are in positions of peril, no risk to life. They do not tend to self-perpetuation to anything like the same extent as epileptic fits, for in many instances they are, as it were, excrescences of childhood and youth, and wear themselves out in middle age. Even when they cling for life, it is often impossible to attribute to them pernicious results; and yet in many cases they do, I believe, have consequences of a painful and crippling description.

That dreamy mental states may persist throughout life without appreciable detriment to body or mind is, as has been said, undoubtedly true, but the same thing is true of epilepsy, which does occasionally go on into extreme old age without perceptible impairment of intellect or general health. It is sometimes even hinted that epilepsy, or the *morbus sacer*, is advantageous to intellectual development. We are told that Julius Cæsar and Mahommed and Marlborough and Napoleon and Wellington were epileptic, and are led to infer that that disease is almost an essential condition of great military genius, and the names of Molière and Sheridan and Balzac and Flaubert and other eminent writers who have been epileptic are mentioned in order to suggest that that disease is sometimes a valuable ingredient in literary talent. But a strict examination of all such cases brings out the truth that when the epilepsy did not come late in life, as a result of cerebral wear and tear, it did not promote, but to some degree marred, the genius or ability on which it was grafted. No doubt cases are encountered in which lifelong and violent epilepsy has proved not incompatible with great and sustained mental vigour. I have known a magistrate who at eighty years of age was a model of shrewdness and industry, and was still taking an active part in county business, and who had from puberty suffered from epileptic fits at short intervals; and there are, I believe, men similarly afflicted now filling important public positions with usefulness and distinction. Dostoieffsky, the great Russian novelist, was from youth subject to epilepsy of the worst type, and yet, notwithstanding this malady and intolerable hardships endured during imprisonment, penal servitude in Siberia, and enforced military service, he lived to the age of sixty, and went on to the end producing novels which will make his name live for ever, and in one of which he has delineated with minute observance and rare fidelity the symptoms of his own disease.

But such cases are exceptional. The rule is that epilepsy is a blighting, a crippling, a destroying disease. Our asylums, workhouses, prisons, and hospitals are full of the débris of its storms, and the flotsam and jetsam left by these may now and then be recognised floating hopelessly in the stream of population in our streets. And so, if dreamy mental states may coexist with brilliant intellectual powers, with robust health and energetic character, they may also on the large scale tend to undermine the mental and bodily constitution. It is difficult to gauge their effects. Even when occurring in great men they may to some extent limit the greatness to which they are attached; and in ordinary men they do assuredly sometimes blunt the fine edge of talent and induce dulness and stupidity or lower the breaking strain of the brain. When they occur at wide intervals their effects are probably immaterial; they are so slight and fugaceous as to escape notice. But when they come very frequently or in batches I have seen depression, mental torpor, and even temporary dementia resulting from them. They tarnish for a time the brightness of the brain and reduce the power of resistance of those who suffer from them, to other morbific agencies. John Addington Symonds, the historian of the Renaissance, suffered from dreamy mental states which left on him discernible traces. "Suddenly in church or in company," he said, "when I was reading, and always, I think, when my muscles were at rest, I felt the approach of the mood. Irresistibly it took possession of my mind and will, lasted what seemed an eternity, and disappeared in a series of rapid sensations which resembled the awakening from anæsthetic influence. One reason why I disliked this kind of trance was that I could not describe it to myself. I cannot even now find words to render it intelligible. It consisted in a gradual but swiftly progressing obliteration of space, time, sensation, and the multitudinous factors of experience, which seems to qualify what we are pleased to call ourself. In proportion as these conditions of ordinary consciousness were subtracted, the sense of an underlying or essential consciousness acquired intensity. At last nothing remained but a pure, absolute, abstract self. The universe became without form and void of content. But self persisted formidable in its vivid keenness, feeling the most poignant doubt about reality, ready, as it seemed, to find existence break as breaks a bubble round about it. The apprehension of a coming dissolution, the grim conviction that this state was the last of the conscious self, that I had followed the last thread of being to the verge of the abyss, and had arrived at demonstration of eternal Maya or illusion, stirred, or seemed to stir, me up again. The return to ordinary conditions of sentient existence began by my first recovering

the power of touch, and then by a gradual though rapid influx of familiar impressions and diurnal interests. At last I felt myself once more a human being, and although the riddle of what is meant by life remained unsolved I was thankful for the return from the abyss, the deliverance from so awful an initiation into the mysteries of scepticism."

These subtly analysed experiences of Symonds were not, as one of his critics imagines, an efflorescence of the meditativeness and introspectiveness of his nature, but unmistakably dreamy mental states, and dreamy mental states, too, which left a permanent mark or blemish upon him. His achievements, as he has himself declared, fell far short of his own justifiable anticipations and of those of his friends, and throughout life he was haunted by melancholy and by painful but concealed misgivings as to his own weakness. "I feel so weak," he complains, "so unable to take hold of any subject"—and this was long before his pulmonary trouble commenced. "I wish and cannot will," he again exclaims; "I cannot concentrate myself on an end of action." There was, it must be admitted, something lacking in him, a disarray of the faculties, constant lassitude, and uncertainty as to the path to pursue. His life has been described as a great spiritual tragedy, and it was so apparently because his highest nerve centres were in some degree enfeebled or damaged by these dreamy mental states which afflicted him so grievously.

Seeing, then, that dreamy mental states—although occasionally an appanage of genius and often innocuous—sometimes lead up to epilepsy or insanity, sometimes are one of a series of morbid events, and sometimes impair the faculties of those who suffer from them, they are surely worthy of medical observation and research. Especially in children and in the young should they be sought for and studied. If we want healthy and vigorous men and women we must begin with the babies; and if we want strong and stable brains we must see that their foundations are well and truly laid in the springtime of life. Flaws then overlooked may cause disastrous subsidence long after, and as dreamy mental states are flaws I advocate their detection if possible while they are still remediable. I do not suggest that mere children should be promiscuously subjected to crooked questionings, should have strange fancies put into their heads, or should be encouraged in introspection; but I do counsel that when children exhibit anomalous nervous symptoms—forgetfulness, lethargy, paroxysms of passion, immorality, tremors or odd movements or tricks, habit spasms, insomnia or headaches—the possibility of dreamy mental states being present should not be overlooked. A few skilful exploratory queries by the medical man will generally bring them to light where they exist, even when they have been scrupulously hidden away, and their discovery will be a great relief to the little patient and a guide to treatment.

As regards the treatment of dreamy mental states, it need only be said that it does not differ from that of cerebral neurasthenia and epilepsy. In almost all cases in which these states mount to such intensity as to demand treatment there is a reduction in the standard of general health and inferentially abnormal nutrition of the brain; and it would seem, indeed, that they depend on the reduction of cerebral nutrition to a lower level in whole or in part, and to an attendant increased instability in the brain tissue. In those who suffer from them habitually they become aggravated in character during periods of ill-health and debility, and in town-bred children they are often connected with anæmia and excessive mental fatigue, and occasionally in the case of boys—though not, I believe, as frequently as might be imagined—with self-abuse. Rest and liberal nourishment rarely fail to alleviate and sometimes remove them altogether; but the rest must be adequate and the nourishment wisely chosen. A diet too rich in animal food has seemed in one case in which I have seen it tried to make dreamy states worse than they previously were. This is, indeed, what we might have expected. Shakespeare, in "Twelfth Night," makes Sir Andrew Aguecheek say, "I am a great eater of meat, and I believe that does harm to my wit"; and, whatever the effect of a liberal diet of animal food may be upon the healthy understanding, there can be little doubt that it is prejudicial to the mental power of epileptics. Just twenty years ago one of my colleagues, Dr. John Merson, carried out at the West Riding Asylum in a masterly way a series of observations bearing on this point. He placed two groups of epileptic patients on a nitrogenous and farinaceous diet respectively for a fixed period, and then for a like period he changed the dietary of the two groups, giving those patients who had had a farinaceous diet a nitrogenous one, and those who had had a nitrogenous diet a farinaceous one. The patients on whom he experimented were of a chronic and confirmed class—patients in whom long-continued epilepsy had resulted in mental deterioration; and yet even in them marked results were obtained. In fourteen out of twenty-four cases there was a decided decrease in the number of fits during the farinaceous diet, and in a very considerable number of cases it was observed that soon after the nitrogenous diet was commenced mental dulness and stupidity supervened, the patient passing into a state of hebetude, which only disappeared when a farinaceous diet was again resorted to. Quite recently Dr. Sydney Short of Birmingham made observations on the same subject, and found that in a number of epileptic patients, also of a chronic class and inmates of the City Infirmary, a reduction in the amount of meat in their diet was followed by a diminution in the number of fits.

What we now urgently need are accurate and extended observations on the influence of diets of various kinds, including and excluding several classes of constituents, in epilepsy and allied conditions, and experiments, scientifically devised and carefully guarded, with drugs. We possess remedies which have elective affinities for certain nerve centres, and which, therefore, promise to be useful in epilepsies of certain kinds; and for my part I will not believe that there is any finality in treatment, or that we have not in store for us the discovery of means of dealing with epilepsy and its allies even more potent than that medicine which Sir Charles Locock with such happy perspicuity placed in our hands as a weapon against them, at the very time when it had been omitted from the London Pharmacopœia because of its supposed uselessness and inertness. It is disheartening to reflect, however, that so little is being done, and that the material at hand is not more largely utilised. There are in our asylums and workhouses to-day enormous numbers of epileptics, the majority of whom are, I believe, as far as medical treatment is concerned, left to jolt down the hill of fatuity, headlong and heedlessly or with only the temporary application of the bromide brake now and then.

The fact that dreamy mental states are sometimes at first and to some extent under voluntary control, so that they can be induced or arrested, affords ground for the hope that well-ordered education and mental discipline will yet be made to contribute largely to brain health. Hitherto the education of the schoolmen with all its advantages, which I would be the last to disparage, has, alas, been responsible for much cerebral sorrow and ruin. Let us hope that education, when carried on on physiological lines, will conduce to peace and stability in the higher nerve centres. Let us hope also that a further investigation of the moral treatment of disease will put us in possession of methods of controlling mental metabolism—if I may coin the term—more powerful and exact than any as yet devised. We shall some day perchance be able by certain courses of study to massage the brain as we now do the body, and by certain definite exercises to bring successively into hygienic activity all the faculties of the mind, as Schott now does the muscles of the trunk and limbs. Gentlemen, I fear I have by my prolixity induced in many of you dreamy states of a purely physiological kind. I can only trust that they have not been of a disagreeable complexion and will leave you disposed to extend to me the indulgence I feel I require.

THE REGISTERED NURSES' SOCIETY.—The first annual meeting of this society, whose offices are at 269, Regent-street, London, was held, by the invitation of the Duke and Duchess of Abercorn, at Hampden House, on Saturday last. The chair was taken by Dr. Bedford Fenwick, treasurer, and the report of the committee showed that the society has achieved success in its first year of working. It was formed in order to enable the public to obtain the services of registered trained nurses, it being an essential condition of membership that every nurse must have worked for at least three years in hospitals, and must possess the highest professional qualifications and personal character. The nurses obtained their entire earnings, less a deduction of 7½ per cent. to cover expenses of management. That the society has met a public want is evident from the fact that a large number of applications for nurses have been made that could not be supplied; while the average receipts of the sixteen senior nurses for fifty-one weeks' work (£111 12s.) are a proof of the benefit of the society to its associates.

The Croonian Lectures,

BEING A

CONTRIBUTION TO THE HISTORY OF THE RESPIRATION OF MAN.

Delivered before the Royal College of Physicians of London on June 18th, 20th, 25th, and 27th.

BY W. MARCET, M.D. EDIN., F.R.C.P. LOND., F.R.S.

LECTURE IV.[1]

Delivered on June 27th.

MR. PRESIDENT AND GENTLEMEN,—So far we have dealt with the phenomena of respiration as carried on in the ordinary course of life. I now wish to draw your attention to breathing under circumstances which are not of daily occurrence, the first of these being under the influence of diminished atmospheric pressure as met with on ascending into high altitudes. This subject is important not only physiologically, but also with reference to the modern treatment of phthisis.

It must be clearly understood that the carbonic acid expired is unconnected with the consumption of the oxygen taken in the previous inspiration, as the oxygen derived from the air is carried into the circulation by the hæmoglobin and there serves the purpose of heat production and metabolism; the carbonic acid produced in the tissues passes out into the blood and is ejected with the expired air. Thus it is impossible to tell when a certain volume of oxygen taken into the blood may reappear as carbonic acid. This point I wish to establish clearly, as I believe an objection to my work has been made on that score.

If experiments on the respiration of man could be continued for a length of time—say the whole day—then the volume of air breathed would certainly compare with the weight (or volume) of carbonic acid produced; but it is not possible to do this, and the only alternative is to repeat the experiment as often as possible throughout the day, and take the means of the volume of air breathed and carbonic acid produced—a method invariably adopted in my experiments. I do not claim a relationship between the oxygen inspired and the carbonic acid expired immediately afterwards, but I claim a relationship between the mean volume of air breathed and the mean weight of carbonic acid expired in the course of one day. On ascending a mountain the air pressure diminishes and the pulmonary ventilation increases, in order to aerate the blood to its full extent. Now, although the volume of air breathed increases on rising above the sea level, still the weight of that air falls; in other words, its volume, reduced to dryness, freezing point, and seaside pressure, diminishes. Hence it may be said that, as one ascends, a less weight or volume (reduced to dryness and standard temperature and pressure) of air is breathed for the production of a given amount of carbonic acid. For instance, if at the seaside a person inspires a mean of 4·5 litres of air and expires 0·375 gramme of carbonic acid per minute, or, what is the same thing, inspires 12 litres of air, corresponding to the emission of 1 gramme of carbonic acid, on rising to such a height that the atmospheric pressure falls by one-fourth its amount at the sea level, the volume of air breathed corresponding to 1 gramme of carbonic acid will not exceed the original 12 litres by one-fourth, and thus become 15 litres, but will be less than 15 litres. It must be understood that the volumes of air breathed (reduced) decrease at increasing altitudes, a fact first published by a Swiss gentleman, Dr. Mermod, in 1875, and which I confirmed a few months later with observations made at much greater altitudes, his experiments being unknown to me at the time. A number of experiments made on the Peak of Teneriffe have also shown me conclusively that in perfect health the amount of carbonic acid expired remains unaltered with increasing altitudes, at any rate up to about 12,000 feet. According to Dr. Mermod, on the other hand, it becomes greater on rising above the sea level. On this point we therefore disagree. Discarding for a moment the idea of the influence of altitudes, it is well known that when the temperature of the atmosphere falls a greater volume of air is breathed and more carbonic acid expired, but the volume of air breathed for the emission of a certain weight or volume of carbonic acid is proportionately less; hence it appears that a fall of the atmospheric temperature gives rise to the same kind of effect on respiration as increasing altitudes without change of temperature. My earliest experiments made on the Alps were all attended with a fall of temperature at increasing altitudes, this circumstance necessarily producing an increased combustion in the body in order to overcome the action of the cold; it was therefore impossible by this means to determine the exclusive influence of atmospheric pressure on respiration, hence the necessity of selecting for these experiments a mountain of sufficient height near the tropics where one might expect to find the temperature fairly equal at different altitudes. With this object in view I spent three weeks on the Peak of Teneriffe in the summer of 1878, selecting for this inquiry four stations varying in altitude. The temperatures differed but very slightly at the four stations, though somewhat higher at the lowest, but there was no cause for any marked influence of temperature on the formation of carbonic acid. The air was expired into an indiarubber bag of known capacity, and a sample of the air was shaken with baryta water in a glass cylinder. The fluid, having absorbed all the carbonic acid, was afterwards collected in bottles, one for each analysis, and carefully stoppered, the final analysis being made at a subsequent period. In the following results every figure is the mean of the number of experiments entered in parentheses, the table showing the number of litres of air expired (reduced to dryness, freezing point, and seaside pressure) for 1 gramme of carbonic acid expired:—

—	Litres.	Temperature.	—
Seaside	12·0	75·7° F.	(20)
Guajara (7090 ft.)...	11·6	69·6° F.	(21)
Alta Vista (10,700 ft.)	10·4	64·0° F.	(20)
Foot of terminal cone (11,740 ft.) ...	10·3	64·0° F.	(5)

The difference is not great, still for 10,700 ft. it amounts to 1·6 litres; hence one-eighth less air was required at the two higher stations to produce through the respiration the same amount of carbonic acid as at the seaside. In other experiments made on the Col du Géant the reduction for an increased altitude of 9800 ft. amounted to about one-fifth in my own case, and rather more than one-twelfth for a young companion. On other occasions at various altitudes, from 8115 ft. to 13 680 ft., the mean height, 11,256 ft., gave a mean reduction of 2·03 litres of air breathed for 1 gramme of carbonic acid produced. These experiments show clearly that the aeration of the blood takes place more readily under diminished pressures than at the seaside, which is not easily accounted for. Paul Bert observed that the blood of various animals forwarded to Paris from the town of Mexico, situated at an elevation of 7480 ft., had the power of absorbing considerably more oxygen than the blood of similar animals kept in Paris, and concludes that the Mexican blood contained more hæmoglobin. This may be correct, but such a character could only be acquired after a number of years, perhaps of generations, while in my experiments the effect was produced, if not immediately, certainly after a few hours, when no change in the constitution of the blood could possibly have taken place. Frankland found that candles burn more brightly in air partially exhausted by an air pump than in the surrounding atmosphere, and concluded from this experiment that the molecules of oxygen have a greater mobility in the rarefied air. The more ready passage of oxygen into the blood at the lungs on reaching a high altitude may be due to a similar cause, but I cannot think that it is in any way connected with an increase of hæmoglobin.

As regards the medical aspect of the question, with reference to the treatment of phthisis in high winter stations, as Davos and St. Moritz, people residing there must live under circumstances facilitating the aeration of their blood, and I have no doubt that this is a primary and important cause of the beneficial effects produced. The extreme cold experienced must also be beneficial, since cold reduces the volume of air that has to be inspired for the production of a

[1] Lectures I., II., and III. were published in THE LANCET of June 22nd and 29th and July 6th respectively.

given amount of carbonic acid, so that both altitude and cold join in facilitating the respiratory phenomena. There is another experiment of Frankland which throws light on the circumstance that cold is so little felt on high winter stations. He found that if a platinum wire carried through an air pump receiver was made red-hot by an electric current it rose to white heat when the air pressure was reduced in the receiver, although the source of heat remained unchanged, from which he concluded that rarefied air removed less heat by conduction than the same air under atmospheric pressure. In accordance with this observation Frankland accounts for the fact that cold is felt less than might have been expected in the still air of Davos, from the circumstance that the lightness of the air checks the removal of heat from the body by atmospheric conduction. This view gains support from the statement of Paul Bert, in his book on barometric pressures, that compressed air has a tendency to produce a sensation of cold, although the temperature of the compressed air chamber may be higher than that of the external air, and with persons subject to the impression of cold this effect of increased air pressure is observed to become greater the longer the exposure and the higher the pressure. I, therefore, cannot help believing with Frankland that increased lightness of the air, acting inversely to increased pressures, assists in accounting for the remarkable fact that patients at Davos are so little troubled with the intense cold. An easy respiration at great altitudes is in a great measure the result of training; thus, while practised climbers easily ascend Mont Blanc, tiros, after about 10,000 ft. are attained, have to stop frequently for a few seconds to take breath, and often give way to fatigue or to a sleepy sensation or mountain sickness. Perhaps the most remarkable illustration of the influence of training is shown in the case of Mr. Whymper, who, having fought his way slowly and patiently to the summit of Chimborazo in spite of the suffocating effect of the low atmospheric pressure, experienced no difficulty whatever in repeating the same ascent six months later, having been engaged meanwhile in explorations at great altitudes in the Andes.

It may be remembered that in my last lecture I traced a connexion between "volition" and respiration; it will now be interesting to observe the effect of low atmospheric pressure on volition. Paul Bert submitted himself to low pressures in a closed chamber. At a pressure of 17·5 in. of mercury, having attempted to whistle, he found it impossible to do so; at 17 in. he suffered from dizziness, which recurred at 16·6 in.; at 16·4 in. he felt rather unwell, and, having counted 23 pulsations at the wrist in 20 seconds, found great difficulty in multiplying that figure by 3. These statements show that Bert experienced in a marked degree what we might call want of power to respond to volition under that low pressure. When the pressure had risen to 22·2 in. he began to recover his ability to whistle. Is not this an illustration of the action of oxygen towards promoting the power of the will?

A more remarkable illustration of the effect of a deficient supply of oxygen towards the suspension of the action of volition is found in the account given by Mr. Glaisher of his balloon ascent with Mr. Coxwell on Sept. 5th, 1862, when, at an elevation of 29 000 ft., the balloon still rising rapidly, he lost consciousness. Allow me to extract *verbatim* from Mr. Glaisher's book, "Travels in the Air":—"At 1 o'clock and 51 minutes the barometer read 10·8 inches. After this I could not see the column of mercury in the wet-bulb thermometer, nor the hands of a watch, nor the fine divisions on any instrument. I asked Mr. Coxwell to help me to read the instruments. In consequence, however, of the rotatory motion of the balloon, which had continued without ceasing since leaving the earth, the valve line had become entangled, and he had to leave the car and mount into the ring to readjust it. I then looked at the barometer, and found the reading 9¾ inches, still decreasing fast, implying a height exceeding 29 000 feet. Shortly after I laid my arm upon the table possessed of its full vigour, but on being desirous of using it, I found it powerless; it must have lost its power momentarily. On trying to move the other arm I found it powerless also. Then I tried to shake myself and succeeded, but I seemed to have no limbs. In looking at the barometer my head fell over my left shoulder. I struggled and shook my body again, but could not use my arms. Setting my head upright for an instant only, it fell on my right shoulder; then I fell backwards, my back resting against the side of the car, and my head on its edge. ..... As in the case of the arms, so all muscular power was lost in an instant from my back and neck. ..... In an instant intense darkness overcame me so that the optic nerve lost power suddenly, but I was still conscious, with as active a brain as at the present moment while writing this. ..... While powerless I heard the words 'temperature' and 'observation,' and I knew Mr. Coxwell was in the car speaking to and endeavouring to rouse me before consciousness and hearing had returned. I then heard him speak more emphatically, but could not see, speak or move. ..... Then the instruments became dimly visible, then Mr. Coxwell, then shortly I saw clearly, next I rose from my seat and looked around as though waking from sleep. ..... I then drew up my legs, which had been extended, and took a pencil in my hands and began observations. ..... It is probable that three or four minutes passed from my hearing the words 'temperature' and 'observation' till I began to observe."

The case of Mr. Glaisher is very remarkable if taken in conjunction with the fact, which I look upon as proved experimentally, at all events as far as an experiment can go for the present, that the exercise of volition requires the direct action of oxygen on the brain centre concerned. In the present instance the conception of volition was not in abeyance, as Mr. Glaisher could direct his will as he pleased, but there was no response; he wished to move his limbs and could not. Hence as far as can be concluded from the experiment of Bert and the narrative of Mr. Glaisher the conception of volition does not require oxygen, but the manifestation or response of volition cannot be carried out without it.

Another effect of rarefied air when accompanied by intense cold is that it appears to check the mental faculties, producing the sensation of drowsiness so often experienced on high mountains.

Thus far the effects of diminished pressure have been considered; those produced by increase of pressure have been the subject of many inquiries. Paul Bert assimilates the effect of an increased atmospheric pressure to the respiration of a proportional addition of oxygen at ordinary pressure; this view, however, does not take into account the cooling influence of compressed air.

From Dalton's law the solubility of gases increases proportionately with the pressures, hence under increased atmospheric pressure a little more oxygen should be absorbed by the blood, and this is found experimentally to be the case. There is also a slight increase of carbonic acid expired, which, according to Bert, may be observed up to about five atmospheres, the maximum increase occurring at about three atmospheres. At pressures above five atmospheres oxidation falls below the normal, the excess of oxygen arresting rather than exciting combustion. Quoting from Bert's book, this cessation of the oxidation of tissues from excess of oxygen takes place in all living tissues; even seeds no longer germinate when maintained under pressure. Dr. G. von Liebig, from experiments made in 1875, found that at pressures of about 40·5 in. of mercury the carbonic acid expired was increased by less than 1 per cent. These experiments correspond with others I had occasion to make, when atmospheric air was inhaled in which one-third was replaced by oxygen gas. According to the views advocated by Bert, this artificial air, containing 43 per cent. of oxygen instead of 20·9 per cent., would be equal to a pressure of about two atmospheres. In every experiment there was a large increase of oxygen absorbed by the blood, an increase which very clearly exceeded the absorbing power of the blood corpuscles, but the carbonic acid expired was but slightly, and in some cases not at all, in excess of the normal, thus illustrating very forcibly the remark made in my first lecture, that it is not the oxygen which by offering itself to the blood and tissues promotes the tissue changes. The slight excess of carbonic acid expired when the body is subjected to increased atmospheric pressure is probably due to the greater conducting power of compressed air, which withdraws heat from the body. Dr. C. T. Williams, in his book on "Aerotherapeutics," states that in certain cases of asthma decided relief was obtained by the use of the compressed air bath. I account for this favourable action of compressed air in asthma by regarding the bath as a method of training the respiration. Dr. Williams observed that a larger volume of air was breathed after the use of the bath than before. This increased pulmonary ventilation will obviously assist in aerating the blood and ridding it of its carbonic acid, the percentage of which in the expired air would, I doubt not, be found lower than normal, thus assimilating the phenomenon to one of unconscious forced breathing.

To pass on to another subject. Allow me to draw your attention to the effects of the inhalation of carbonic acid,

and first of all to the phenomena observed on rebreathing one's own expired air. I made experiments by rebreathing for five minutes 35 litres of air contained in a bell jar suspended over salt water. The air was inspired through nasal cannulæ connected with the roof of the receiver, and expired by the mouth into the bell jar in the usual way. At each inspiration the bell jar fell slightly, and rose at the following expiration. Little or no distress was felt during the first three or four minutes, though in the last minute a slight feeling of want of air was occasionally experienced, but this varied with different people. Tracings of this kind of respiration show that as rebreathing continues the respiration becomes deeper and more rapid, while the direction of the tracing is not quite horizontal, but has invariably a tendency to fall; this is due to the absorption of oxygen and carbonic acid in the blood and the consequent diminution of the volume of air in the receiver. The history of the phenomenon is very simple. Oxygen is consumed from the air and partly converted into carbonic acid, while the remainder is used up in other ways. Under ordinary circumstances the carbonic acid produced is exhaled; but in this case it accumulates in the bell jar, and, being inhaled, prevents the free diffusion of the gas from the blood into the lung cavity, and therefore carbonic acid becomes retained in the blood in gradually increasing quantity. Moreover, the amount of oxygen in the air inspired falls rapidly, and this air therefore becomes less and less fit to maintain life. In my inquiries five persons submitted to a total of forty-two experiments, each of which consisted of four stages. In the preliminary stage the carbonic acid was determined in normal respiration. In the second stage 35 litres of atmospheric air were rebreathed for five minutes and subsequently analysed. Immediately after rebreathing, the air expired was diverted into another bell jar, till about 35 litres had been expired, after which the air given out from the lungs was collected separately for a further period of four or five minutes, both quantities being analysed for carbonic acid. The broad results obtained from this inquiry were as follows: 1. On rebreathing air in a closed vessel, less carbonic acid is expired in a given time than in ordinary breathing, a certain proportion remaining absorbed in the blood. 2. When fresh air is taken into the lungs immediately after rebreathing, the volumes of air breathed and carbonic acid expired are greater than in ordinary breathing. 3. When after the rebreathing stage fresh air has been inspired for five or six minutes the blood has recovered its normal state of aeration, and given out the whole of the carbonic acid which has been absorbed in the rebreathing stage. Paul Bert has shown that animals, when left to die in closed vessels, are not asphyxiated from carbonic acid, but die solely from want of air, the phenomenon being the same as if they were submitted to diminished pressures corresponding to the proportion of oxygen left in the receiver in which they were confined. In five of the above rebreathing experiments the mean percentage of the original oxygen which had disappeared was 19·2; the pressure corresponding to this reduction of oxygen would be 24·23 in., equal to an altitude of about 7480 ft.; such a low altitude explains the absence of any difficulty or distress in the breathing. On one occasion rebreathing was continued till the air in the bell jar contained 13·64 per cent. of carbonic acid and only 5·40 per cent. of oxygen, this percentage of oxygen corresponding to a pressure of 7·74 in. of mercury. The person under experiment felt very giddy, and the vision was obscured by a dark mist. It is difficult to state the limit of altitude to which man can attain, because as he rises higher he needs less and less air; the secret of attaining to very great heights is training and time. Mr. Whymper reached an altitude of 20,517 ft. on the Chimborazo, and Mr. Conway to 22,600 ft. on the summit of the Pioneer Peak in the Himalayas.

Returning to the consideration of the influence of carbonic acid on respiration, it is often asked to what extent this gas can be breathed with impunity in the atmosphere. The subject has been investigated, amongst others, by Professor Emmerich and Dr. von Pettenkofer, who, in company with others, shut themselves up in a small vault of the Institute of Hygiene at Munich with bottles of liquid carbonic acid. Light was emitted from candles. The gas was allowed to escape from the bottles, and when the lights went out most of the visitors left the chamber. Professor Emmerich and Dr. Pettenkofer remained inside, and when seized with headache and discomfort took several samples of air and then left the vault none the worse for the experiment. The analysis of the samples gave a mean of 3 per cent. of carbonic acid, which proportion can therefore be breathed for a short time without producing any serious effects. Rabbits have, according to Professors Friedländer and Härter, withstood for more than an hour 34 per cent. of carbonic acid, and even 60 per cent. was breathed for three-quarters of an hour, after which cramp and coma set in; after being exposed for a quarter of an hour in this 60 per cent. mixture the rabbit quickly recovered in the open air.

ASTHMA.

Having said so much on respiration, allow me to offer a few remarks on a disease which is peculiarly one of the respiratory function—that is, asthma; and first of all, as an introduction to the subject, let us analyse the phenomenon of coughing. In coughing, a long breath is taken, which is exactly like a deep or forced inspiration, in which, as I have shown, a certain amount of carbonic acid is produced for work done, the oxygen being derived from that pre-existing in the contracting muscles, while a larger volume of carbonic acid is displaced from the blood by a purely physical process; but, though forced breathing is attended with but comparatively little work, in coughing the respiration is laboured, the muscles having to strain against the closure of the pharynx and forcibly expel the air from the lungs. This results in the production of an excess of carbonic acid; hence at the end of the expiration there is an increased amount of carbonic acid in the circulation. After the forced expiration of coughing a deep breath is taken to supply the blood with a fresh quantity of oxygen and rid it of the excess of carbonic acid produced, and this process goes on till the fit of coughing comes to an end; then deep inspirations and expirations follow till the blood is again perfectly aired and the carbonic acid in excess completely eliminated. It therefore appears that in coughing there is a tendency to a want of oxygen and a distinct excess of carbonic acid in the blood, which are conditions met with, though in a much intensified form, in asphyxia. Now asphyxia is occasionally productive of spasms of the glottis, as seen in some cases of recovery from drowning, and might not the momentary want of air produced by a bad fit of coughing be the cause of asthma in people who are subject to it? The following observation was made by a physician who at times had severe attacks of asthma, though usually in the enjoyment of good health. On Feb. 13th last, after taking a cup of tea at 2.30 A.M., loud wheezing and tightness of the chest came on, when a succession of forced inspirations had the immediate effect of arresting both the wheezing and tightness; a second attack the same night was averted in a similar manner. In this case the forced breathing returned to the blood the oxygen it was clearly in want of, while at the same time removing the carbonic acid.

I have shown in my third lecture that forced breathing is a means of supplying the centre of respiration with oxygen towards the respiratory phenomena; hence it appears to follow that a deficient supply of oxygen to the respiratory centres has also something to do with asthma. In keeping with these remarks it may be said that all circumstances productive of an excess of carbonic acid in the body, and therefore of a deficiency of oxygen, predispose to asthma. Cold and certain kinds of exercise do so pre-eminently, so does the ingestion of food, as happened in the case referred to above, where an attack of asthmatic coughing came on pretty regularly two hours after dinner, or at the time of the maximum production of carbonic acid from the meal. A bad attack of asthma usually sets in with a sudden loud dry cough, coming on in the evening or at night; then follows a bronchial spasm during inspiration and the acute feeling of suffocation. After fighting for breath for ten, twenty, and in some cases thirty hours the respiratory muscles become very tired, and also volition towards the respiratory effort. Moreover, the impediment to breathing prevents oxygen reaching the centres of respiration to promote the exercise of volition for forced breathing; hence the power of the will becomes less and less. It is difficult to reconcile the fact that some asthmatic persons find themselves better under lower atmospheric pressures, while others, on the contrary, suffer the moment they leave the sea level. This is apparently due to the circumstance that some persons take in oxygen more readily under low pressures, and others under high pressures. I cannot help comparing asthma in those who suffer under low pressures to a sort of mountain sickness—the higher they go the worse they are, and the moment they return into the lower plains the asthma passes

off as by magic. If mountain sickness can be prevented by training for the exercise of climbing under low pressure, why should not asthma also yield to the training of the respiration carried out by practising the respiratory movements wanted to carry the tidal air through the lungs to oxidise the blood and emit the carbonic acid, while imparting to the circulation a better tendency to work in perfect harmony with the respiratory requirements? Of all means of training the respiration I think cycling is the best. When a person first takes to cycling he is troubled with shortness of breath, his heart beats uncomfortably, and his legs get tired, but after some training these discomforts all disappear. Why should not people liable to attacks of asthma also train their respiration by such a kind of exercise—of course, on condition of the heart and lungs being in perfect health? Cycling exercise first of all increases the depth of breathing, and that without fatigue, as the respiratory movements are automatic; at the same time it will accustom the rider instinctively to take in at each respiration the volume of air required to aerate the blood and to eliminate a fixed proportion of carbonic acid, leaving in the circulation the precise amount compatible with health. In cycling volition has also a good deal to do towards exercising the motor centres to take in the exact volume of oxygen required for that kind of work. Persons who do not care for cycling out of doors can take the same description of exercise at home by means of a dummy cycle. My experience of the results of this treatment is unfortunately only limited to one person; in which case it has proved eminently successful. This person took to bicycle riding three years ago, first for pleasure and then on account of his health. He observed last summer that attacks of asthma to which he was subject had become very much fewer, having only suffered two since last October, both of these being brought on by exposure to cold. The tightness and wheezing which occurred every night have nearly entirely disappeared; his sleep, which for years had been restless and broken, has very much improved; and all this he ascribes in a great measure to the use of the bicycle.

Allow me, Gentlemen, to summarise shortly the Croonian Lectures for the present year. In the first lecture the oxygen of the atmosphere was shown to be the main agent of life, and Hermann's discovery that oxygen is an integral part of the tissues was appealed to with the object of explaining the remarkable tenacity of life of certain organisms—such as seeds. Next came an attempt to explain that it is not the oxygen of the air which, by offering itself to the tissues, produces the phenomena of metabolism, but that the living tissues call upon the oxygen to effect the changes they undergo. The influence of tissues as the prime movers in the matter was shown by the action of cold, which, through the nervous system, first increases their vitality and consequently their demand for oxygen, though when the cold is excessive it exerts an influence the reverse in its character. Muscular exercise invariably tends to the production of carbonic acid in excess; and this led to some remarks on the temperature of the body while in the act of ascending. It was concluded that with some people there is a slight increase and with others a slight fall of temperature. The second lecture was prefaced with a short allusion to past investigations on human respiration; then followed the history of the different forms of breathing, which were illustrated by tracings (reduced in size) taken directly from the person under experiment. Attention was also drawn to the interesting phenomena of the absorption of oxygen in the body independently of the formation of carbonic acid, and a number of analyses were quoted showing to what extent this absorption takes place. The third lecture was given up entirely to the influence of volition on the respiration. It was shown that volition towards any kind of muscular exercise, including forced breathing, is attended with the absorption of oxygen in excess, and that this oxygen is necessary towards the performance of volition, and, if necessary to volition, it must be taken up by the motor centres of volition. A remarkable effect on the development of muscular force by this charging of the motor centres with oxygen was shown to take place. Finally, an experiment was described in which, volition becoming tired out, the muscles refused to work, this experiment being in keeping with Mosso's discovery. The fourth lecture was devoted first of all to an account of the influence of climbing on the respiratory changes and on the state of the respiratory phenomena at high altitudes. Next, rebreathing and air breathed under pressure were considered, and it was explained that the effect of rebreathed air was apparently due more to the want of oxygen than the absorption of carbonic acid. After a few remarks on the effects of breathing mixtures of carbonic acid and common air the lecture was concluded with an allusion to asthma and a method of treatment suggested by the considerations which may be looked upon as the substance of these four lectures.

THE VARIETIES OF RHEUMATOID ARTHRITIS.[1]

BY R. FORTESCUE FOX, M.D. LOND.

THERE is no class of affections for which relief is more commonly and, I may add, more justly sought at mineral waters and baths than painful enlargements of the joints, particularly those to which the adjectives gouty, rheumatic, or rheumatoid have been attached. It is the object of this paper to present some typical examples of the complex group commonly known as rheumatoid or osteo-arthritis out of a considerable number that have come under my observation at Strathpeffer Spa, to describe by their aid the several varieties of disease at present united under that name, and to deduce if possible some conclusions as to their actual nature. The material at our disposal is clinical—post-mortem examinations are happily rare—and no light has, so far, been shed upon the subject by the method of experiment.

CASE 1.—A young woman aged twenty-four years was placed under my care in September, 1888, by Dr. Chalmers of Stirling, with the following history. There was no known tendency to rheumatism or other illness in the family. The patient had been quite well until eighteen years of age, when in the spring of the year "rheumatism" began quite quietly to show itself in the feet and hands, but without fever or confinement to bed. The catamenia had commenced late—at seventeen—only six months before the onset of the joint troubles; these had been always irregular, two, three, or four times only in the year, and it was stated that the pain, swelling, and stiffness of the joints had been usually worse for a week or more before the periods. In the six years that had elapsed before coming to the Spa the patient had resided in an exposed situation near the east coast of Scotland, and the affection had gradually involved not only the feet, hands, and wrists, but, latterly, the knees and elbows also. In September, 1888, she was obviously much out of health, there being frequent neuralgic headache, malaise, anorexia, profuse perspiration, sometimes confined to the back of the neck and head and to the hands, which were cold, clammy, and sodden with moisture. The pulse was 90 and the heart was normal. Severe pains were present in the joints and in the body generally; these were always worse at night. A course of baths considerably relieved the symptoms, and she remained much better for three months, when the complaint returned and gradually incapacitated her, although, with great energy, she continued her occupation as teacher in a bleak country-side, and was carried to and from the schoolhouse in the winter months. This was followed by a long period of confinement to bed, with cod-liver oil treatment, and considerable improvement in general health resulted. In the following February (1890) she returned to Strathpeffer, presenting the following condition. The hands still had a white, sodden, œdematous appearance; the finger-joints, formerly so much swollen, were nearly natural in size, but two or three were slightly stiff; the wrists were uniformly swollen and nearly immovable; the elbow-joints were both swollen and stiff, the left being almost immovable; the feet were swollen and painful; and the knees, hips, and shoulders were practically unaffected. In July of the same year, the joints being quiet and the general health much improved under a prolonged course of Spa treatment, I broke down the adhesions in the stiff elbow under an anæsthetic. In February, 1895, thirteen years after the onset of the malady, this patient wrote that she was confined to her couch or bath-chair; both legs and the right arm were stiff from adhesions and were useless, but the arm on which the

[1] Read before the Hunterian Society, March 27th, 1895.

operation was performed five years ago remains a fairly movable and useful limb.

CASE 2.—A girl, a gamekeeper's daughter, had enjoyed good health until eleven years of age. No tendency to hereditary disease had been noted, excepting that her father, like most gamekeepers, had had rheumatism slightly. At that age she had influenza, with severe pains in the limbs and a skin eruption. Four months later, while going about during the summer of 1890, rheumatoid arthritis gradually set in, affecting, successively, the left hip and thigh, both hands, and the left foot. A year later (June, 1891) she sought relief at Strathpeffer, and her condition was then as follows. The patient was twelve years of age, tall, delicate, weak, anæmic, and subject to profuse perspiration. She had been growing quickly. The catamenia had not appeared. The right wrist was uniformly and evenly enlarged, painful and tender, with very limited flexion movement; the left wrist was similarly affected, but less so. There was in both wrists slight crackling on movement. The left ankle was slightly enlarged and tender. She remained for two months under Spa treatment, taking a course of douche baths in addition to sulphur waters internally; she left greatly benefited. In August, 1891, she returned; there were wasting of the interossei muscles and too great prominence of the styloid process of the ulna, the wrist remaining nearly stiff, but the inflammatory stage being confined to the middle joint of one finger. Three and a half years later (March, 1895) she wrote that she was quite well, but the right wrist remained stiff and swollen, and the one finger still affected.

These two cases illustrate the rheumatoid arthritis of young subjects, and it is, in my experience, in the young that the disease assumes its most severe and intractable, and, I would, add, typical, form. (See Figs. 1, 2, and 3.) A large number of joints are usually

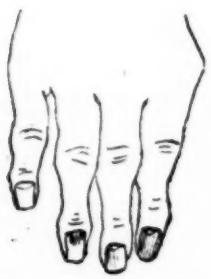
FIG. 1.

Third and fourth fingers of right hand of female aged thirteen; two years after onset of arthritis.

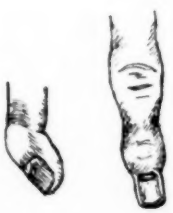
FIG. 2.

The same one year later.

FIG. 3.



The same three years later; commencing affection of terminal joints.



The same, third right finger; first left finger (lateral view); soft rounded dorsal swellings.

affected, and there are, from the first, profound debility, rapid heart, profuse perspiration, and progressive wasting. The articular symptoms vary according to the severity and duration of the malady. During the inflammatory stage, which commonly extends over several years, there is always swelling, usually (though not always) symmetrical and involving both the joints and the extra-articular structures. In the acute condition there are synovial effusion, heat, and extreme pain and tenderness. Mobility rapidly diminishes, and stiffness may ensue early in the case. Pain is present always and is referred not only to the joint but to the nerves and muscles. In the joint it is dull, aching, or burning in character when at rest; severe and acute on movement; and it is darting and lancinating when referred to the nerves. Neither season nor weather commonly affect the pains. In some cases it is specially noted that they are more severe in the hot days of summer; in others, especially in the early stages of the complaint, that the pains tend to subside in summer and return in winter. Increased stiffness is frequently complained of during a change in the weather, and it is usual for the pain to be more severe in the night-time, particularly from 3 to 5 A.M. The second period of the disease is marked by degeneration and atrophy both of joints and muscles. Certain joints are subject to occasional returns of inflammation, but the main condition now is one of atrophy, with stiffness and more or less—sometimes very little—deformity. Such deformity as exists is due to muscular wasting and subluxation of the phalanges rather than to lipping of the articular edges or osteophytic growths, which are rarely met with in rheumatoid arthritis of the young. The middle phalangeal joints, the wrists, and the tarsal joints seem to be particularly obnoxious to the disease, and are usually much swollen. Somewhat later in the disease one commonly finds several of the terminal phalangeal joints absolutely stiff and obviously atrophied. The joint is thinned and concave on the dorsal aspect, and covered by glossy skin, and yet I have seldom met with swelling or inflammation of these joints in rheumatoid arthritis; the fact of their becoming affected with simple atrophy is not without a bearing on the pathology of the disease. (See Fig. 4.)

Rheumatoid arthritis of the young is, in my opinion, a clearly outlined clinical variety of the disease. Out of forty cases of which I have full notes thirty-two are females—that is, four out of five; and of the eight males two should perhaps be excluded as gonorrhœa preceded the arthritis. The youngest of my cases was six years of age at the commencement of the disease. The average age is twenty-two years and a half; this is the age of catarrhal affections and of tubercle, not the age of adolescence or development, but the age at which the finished nervous and bodily powers are put to their first serious practical strain. It is also, therefore, especially in the female sex, the time of nervous and emotional tension and breakdown. In some cases (thirteen or fourteen out of forty) depressing illness preceded the arthritis, such as typhoid fever, great nervousness and weakness, influenza, suppurative otitis, double conjunctivitis, abscess of the right hand repeatedly lanced (in this case the disease began in the right thumb), dyspepsia and chronic diarrhœa, dyspepsia when at school in Germany, and exhaustion after childbirth. The exciting cause is stated in a good many (twelve) cases to be chill or cold, sitting on damp grass, &c., and in one case the shock of a railway accident. Certain localities, or rather climates, are favourable to the development of the disease, and eight of the forty cases came from the east coast or near the east coast of Scotland, particularly about the Firth of Tay. The following symptoms are noted as preliminary or pre-arthritic, and have some bearing on the nature of the disease: peculiar "want of animal heat" and a "sense of chilliness" (this was noted as continuing in one case for three years, and in another for some years, before the joints became affected, after which there was natural warmth; Sir Alfred Garrod has noted "languid circulation and cold extremities" as common in rheumatoid arthritis, but this common condition is not, I think, usually associated with the sensation of cold); pains under the balls of the toes and, as my friend Dr. Spender of Bath has noticed, pain at the root of the thumb; toothache-like pains in various joints—worse at night; numbness and aching in the fingers; heat and pain in the soles of the feet (a frequent observation); pains all over the body; flying pains, languor and sense of fatigue (several cases); pain, sweating, and restlessness; and pain and stiffness in the calves of the legs accompanied by dark blotches on the thighs. These are the symptoms recorded as existing for a variable time before the localisation of pain and swelling in the joints. Dr. Spender has dwelt upon the importance of recognising these early symptoms; and I have myself seen several cases in young people in whom the rapid pulse, localised sweating, neuralgic pains, and peculiar debility presaged, only too surely, the onset of this frightful malady. The following cases are typical of a somewhat similar condition met with later in life. (See Figs. 4 and 5.)

CASE 3.—A tall, robust, vigorous, married woman fifty-three years of age had suffered from no particular illnesses Both parents were healthy and died when over eighty years of age. One brother died from phthisis, and a sister had had sciatica and muscular rheumatism. The patient was childless; a fibroid of the uterus had been discovered at forty, but had not inconvenienced her much, and the catamenia ceased naturally at forty-nine, since which time (four years) she had been subject to heats and flushes with occasional pains and swellings in the knees. At fifty-three years of age she contracted a chill when heated, and was laid up with severe pain in the left hip and wrist and to a lesser extent in the right ankle. The painful parts became swollen and she perspired profusely. Seven months later (October, 1892) she came for treatment to Strathpeffer. Both the knees were at this time greatly enlarged, in addition to the left wrist and right ankle. Although she was scarcely

FIG. 4.

Left hand of female aged twenty-five; two years after onset of arthritis.

FIG. 5.

Third, fourth, and fifth fingers of female aged fifty-four; eight months after onset of arthritis. Terminal joints stiff and atrophied, concave and glossy on the dorsal aspect. Nails longitudinally ridged and brown.

able to walk a course of warm douche baths were successfully given. In the following July she returned, reporting considerable improvement, but the knees still remained painful, and, indeed, rather more swollen, and there was much crackling on movement. Some of the terminal phalangeal joints, not obviously affected before, were becoming atrophied, with stiffness and glossy skin. (See Fig. 5) A full course of douche baths was ordered, in addition to sulphur waters internally, and in the following winter she took, by my advice, a long course of arsenious acid with carbonate of iron. In June, 1894, she made a third visit to the Spa, reporting herself as much better and walking two miles. She was free from pain, excepting on damp days; the left wrist was almost absolutely stiff; there was dry crackling in the left thumb, and some of the fingers did not close properly. After further hot douching and massage a limited movement was obtained in the left wrist, and since then she had remained, but for the stiff joints, practically well.

CASE 4.—A married woman aged forty-two came to Strathpeffer in June, 1888, having suffered from rheumatoid arthritis about twelve months. The family history showed no signs of rheumatism or gout, but one sister had died from phthisis at twenty-four. The patient, who had never had rheumatism before, was the mother of nine children, and the youngest, born when she was thirty-nine, she had nursed for fifteen months. The arthritis, for which no cause is assigned, came on in June, 1887, "simultaneously in all the joints," and confined her to bed or couch for nearly twelve months. On arrival at Strathpeffer the knees and hands principally were found to be affected, the former being very stiff, painful, and swollen, and the mid-phalangeal joints were becoming stiff and concave on the dorsal aspect. The general health was low, she being subject to frequent perspiration, especially of the hands, and acute pains. Although confined to the house and almost to bed, a course of waters was taken in 1888 and in the following year, on both occasions with benefit. Two years later (July, 1891) she returned, four years after the onset of the disease, presenting the following condition. The right hip-joint had been acutely affected, and was still much swollen and exceedingly painful on adduction and abduction. The disorganising process had gone on in the left knee, and a sudden attack of very acute pain on moving the joint (probably displacement of diseased cartilage) had been followed by almost absolute stiffness for the previous twelve months. The general condition had, however, improved; the hands were decidedly better, and the left wrist was stiff, but allowing the patient to use the sewing machine; she was, however, unable to walk or stand. After a prolonged course of douche baths I endeavoured to extend the left knee under an anæsthetic. It was fixed at an angle of about 120°, and so firm were the adhesions that it was with great difficulty I brought it to about 150° and put it up in a poroplastic splint. It is now three and a half years since the operation, and the patient has written stating that she is much better in health, that the perspirations have ceased, the hip and hands are much better, and although she still suffers occasionally from sharp pain in the left knee she can walk from half a mile to a mile.

The generalised rheumatoid arthritis of the climacteric epoch which these two cases exemplify is represented by thirteen cases out of a series of sixty-five. All, of course, are females, and the average age at onset is forty-eight years, the extremes being thirty-seven and fifty-four. In many cases the disease is certainly much less severe than in our first and much larger clinical group. Intermissions of one or two years are not very uncommon after the first onset, and after a few years comparative quiescence with localisation in one or two or a few joints is much more frequent than in arthritis of the young. (See Fig. 6.)

FIG. 6.

Right hand of female aged forty-nine; three years after onset of arthritis; wrist much affected.

There is at the same time less profound constitutional disturbance and thus a more favourable prognosis. In several of my cases the complaint has been almost or quite confined to the left side of the body. It is worthy of remark that this form of anthritis may be, and often is, complicated by any hereditary or other condition peculiar to the climacteric epoch in women. Thus gout in some form is not uncommon then, although entirely absent in earlier life; and more frequently there is a state of ill-health which it is difficult to name, and to which I referred at the International Medical Congress last year in these terms:—"A condition of deteriorated blood, loaded with waste products, frequently met with after middle age, but more particularly in women, and due apparently to some defect of metamorphosis or excretion. There is little or no organic disease, but the patient complains, it may be, of obstinate dyspepsia, acidity, shifting rheumatism, sciatica, or lumbago; perhaps cramps, tenderness and heat in the soles of the feet, or other ill-defined articular symptoms, and frequently headaches, cutaneous irritation and eczema. There is often in women a change in the symptoms after the climacteric, the articular pains and swellings becoming then more pronounced."

In climacteric arthritis prearthritic symptoms are very usual, such as neuralgic or shooting pains even for two or three years, burning in the soles of the feet, with or without profuse sweating, etc. In regard to the view advanced by Dr. Ord that the disease is induced by abnormal conditions or disturbance of function of the uterus or ovaries, the following notes may be added. Out of a total of forty-seven cases in women the catamenia are stated to have been irregular in five, there was fibroid tumour of the uterus in two cases, and ulceration and leucorrhœa in one case. The

pains were frequently stated to be unaffected by the catamenial period, but in two cases they were worse beforehand, in two other cases worse at the period, and in one case worse afterwards. Climacteric arthritis attacks married women much more frequently than single, the proportion in my cases being eleven to two, and the patients are, as a rule, mothers of children. Taking all my cases together (Groups 1 and 2) in which the arthritis affected married women, I find that twelve out of sixteen were mothers. In one case, that of a mother of nine children, the arthritis was said to be always better after childbirth, and in another the onset of the disease immediately followed upon childbirth. One of the severest cases of rheumatoid arthritis I have ever seen, and fatal after only four years, was that of a young married woman in whom the disease appeared twelve months after her marriage at twenty-three. The catamenia were regular and painless throughout, and there was no sign of uterine or ovarian disorder. It is worthy of remark that in many of Dr. Ord's cases the arthritis was not general, but localised, and therefore, in my view to be clearly distinguished clinically from the disorder we have now under consideration. Furthermore, a large proportion of his cases occurred about the climacteric period, when, as Haygarth first noted in 1805, nodosities of the joints were most common. To these local and separate forms of arthritis I shall again allude.

The third variety or group is generalised rheumatoid arthritis in the old, senile rheumatoid arthritis, of which the two following cases are examples.

CASE 5.—A man aged sixty-five had been for forty years a gamekeeper on an estate situated in an exposed part of the Highlands. Coming of a healthy long-lived family he was himself a healthy man. He had never had rheumatic fever, but at fifty-one was affected with pleurisy from exposure, and since reaching the age of sixty he had had some slight rheumatism in the right thigh. For some years past the long hours and long fasts upon the hills, with exposure and fatigue, had broken his health, and the sense of duty inadequately done had preyed upon a naturally anxious and overconscientious mind. At sixty-five, therefore, he was obviously failing and depressed, bodily and mentally. At this time an accidental fall in April or May, 1891, was followed by a sudden attack of acute arthritis in both hands, feet, and shoulders, with wasting, perspiration, and malaise. In July of the same year he was seized with acute pains in the arms and legs. On arrival at Strathpeffer in August the small joints of the hands and feet were swollen, tender, and painful. He was very weak and suffered from bronchial catarrh and spasmodic cough, had a double aortic murmur, and some œdema of the legs. The urine was very acid, of specific gravity 1030, was dark with lithates, and contained a trace of albumen. In the course of two months at Strathpeffer the articular symptoms slowly abated, but mental obscuration with delusions and much restlessness supervened, showing that the joint trouble was but a part of a general breakdown profoundly affecting the nervous centres. He died in the spring of 1894, three years after the onset of arthritis.

CASE 6.—A man aged seventy-four was sent to me by Dr. Thom of Crieff. The patient was tall and athletic, and had followed for many years the profession of an engineer. With the exception that his mother had had rheumatism the family history was good. He was naturally of a very energetic temperament, and in middle life had seriously overworked himself, incurring great fatigue and mental anxiety in the management of a large navigation canal. Although often laid up for short periods from cold &c., he had never suffered much from rheumatism until at seventy-four he was seized with lumbago. Loss of flesh and progressive weakness followed, with gradual involvement of many joints, especially the small joints of the hands. A few months later he was attacked by influenza, with increased debility. On arrival at Strathpeffer in June, 1893 (eighteen months after the onset of the illness), the hands and neck presented the typical appearance of subacute arthritis, the middle phalangeal joints being enlarged, tender, and painful. The hands and front of the chest were much pigmented. There were much anæmia and dyspepsia and a suspicion of a systolic murmur at the base of the heart. [Since the above was written Dr. Thom has been good enough to give me the subsequent history. Dr. Thom says: "He died about a year ago—that is, rather more than two years after the commencement of the disease—of cardiac incompetency, mainly aortic. He got rapidly feeble for two months before his death. He continued very dyspeptic, though he was improved by Strathpeffer. The rheumatic affection of the left hand and the back of his neck was most marked. I do not think the rheumatoid arthritis presented much change during the last year of his life."]

Twelve cases in all are included in this group of senile arthritis, comprising ten men and two women aged respectively fifty-nine and sixty-seven. In considering any disorder of the senile period it is of course impossible to forget that there is another age than that of years. If it be true, as Cazalis said, "L'homme a la vie de ses artères," may we not say with equal truth, Man is as old as his nervous centres? I have placed in this group the case of a man of delicate and highly strung nervous organisation who had rheumatic fever at fifteen, but in whom there was a complete nervous and mental breakdown at forty-four, followed by severe and intractable arthritis; also another the subject of alcoholism and erysipelas, in whose case arthritis (which I would call senile) set in after rheumatic fever at forty-five. On the average of the twelve cases the age at onset is fifty-six and a half years. In respect to etiology rheumatic fever in a debilitated subject is set down as the apparent cause in two cases; influenza in two cases; nervous or mental breakdown accompanied the arthritis in four cases out of twelve, and in one or two others there was a history of nervous symptoms in former years. This is the only form of polyarticular arthritis that can be truly said, in my opinion, to belong to the degenerative period. The arthritis of the second and third decades of life, to which I find but scanty reference in the literature of the subject, belongs to the period of nervous instability. The arthritis of the climacteric epoch, or what is truly called "the change of life," is equally associated with nervous disturbance. The incidence of insanity at these two epochs affords to my mind an instructive parallel. Lastly, in the aged, or rather the senile, whether from "toil or years," there is a depressed condition of nutrition in the joints, as is shown by the frequency with which localised arthritis follows trivial injuries. And in those predisposed by family tendency to such changes, degeneration and decay in the nervous centres readily light up the sluggish fires of arthritis, to which senile dementia forms a parallel. Generalised or polyarticular rheumatoid arthritis is the clumsy name by which, as Dr. Archibald Garrod has done in his valuable book, cases such as those I have noted in this paper are at present separated from the localised arthritis commonly due to injury, which, however similar may be the anatomical lesion, runs an entirely different clinical course. Sir Dyce Duckworth has truly said, "Identity in the morbid anatomy does not imply identity in the processes leading up to it."

Having now imperfectly described several clinical varieties of this disorder, some general features remain to be noted. I should say that the 65 cases of which I have full notes were all private patients and mostly persons in comfortable circumstances. Taken altogether there are 18 men and 47 women. As respects heredity, my experience corresponds with the results quoted by Dr. Archibald Garrod. In 33 cases (just one-half) there is a family history of diseases of the joints—namely, gout 9, rheumatoid arthritis 6, rheumatic fever 5, and rheumatism 13. Considering that family history reveals too little rather than too much, may it not be considered that a positive history of hereditary joint trouble in every second case is rather strong evidence of a family arthritic diathesis? In 5 cases near relatives had died from phthisis, but as I have not been much alive to the association with tubercle I think that figure may not fully represent the connexion between the two diseases. Much has been said about the connexion between rheumatoid arthritis and rheumatism, a question which has been, as Mr. Hutchinson reminds us, made more difficult by the obscurity of the terms employed. Rheumatic fever stands apart, to my mind, as a specific infective constitutional disease, and in my own limited experience its connexion with rheumatoid arthritis is altogether exceptional and accidental. In 65 cases there are 5 in which rheumatic fever is stated to have immediately preceded the arthritis. One of these, however, was a mixed case (arthritis and osteomalacia), and 2 were in elderly and debilitated subjects, and therefore, as I have shown, not typical. Moreover, the diagnosis of rheumatic fever is not always quite clear, and rheumatoid arthritis is occasionally acute and febrile in its onset. In 4 more cases an attack of rheumatic fever preceded the arthritis by a variable interval—in one case two years only, but in this case a gonorrhœa was probably the cause of the arthritis. In the 3 others the

intervals were respectively five, twenty-five, and twenty-nine years. In respect to chronic rheumatism, the connexion with arthritis appears to me to consist in the two facts that both disorders may be set up by exposure to cold and damp, and that in both there is usually a painful enlargement of the joints. At Strathpeffer there are every year abundant examples of a painful affection of the muscles, nerves, or joints, arising from exposure to cold and damp, and particularly damp soils. It affects elderly and predisposed subjects, is essentially chronic, there is never the debility or cachexia of arthritis, and in my experience arthritis has never supervened on this form of rheumatism.

In regard to the order of onset, it appears that out of 51 cases the arthritis began in the feet in 28 and in the hands in 10. In 19 of these in which it began in the feet the disease went on by way of the hands in 13, and by way of the knees in only 6. My figures therefore support the statement that the invasion of the joints is usually centripetal, beginning from the small joints of the extremities.

With reference to mental disturbance in connexion with rheumatoid arthritis it should be mentioned that, in addition to its frequent occurrence in the senile cases, there are notes of two cases in the climacteric group in which partial and temporary insanity accompanied the arthritis. In arthritis of the young it is only exceptionally that one can learn the whole course of the malady, but three cases are known to me in this group which have a bearing on the point. In the first there was under my own observation a complete change in a cheerful person to morbid gloom. In the second case a girl developed arthritis at fifteen, suffered intense pain for seven years, and died from convulsive seizures at twenty-two. The third case is interesting from the patient's own observation of her mental state. I saw her first in 1885, and she had then suffered for eight years from the disease. She wrote me in February of the present year as follows: "To me the most trying turn the complaint takes is when I get in a great measure free from pain; it goes to my head, and my brain will scarcely work at all; my memory, too, gets very bad. So I may say I am always best and brightest when in pain." Dr. Ord has related a case in which mania came on when the arthritis subsided. There are, finally, two symptoms mentioned by Dr. Spender and pointing to a nervous origin of the disease. Gastric crises or unprovoked vomiting I have only exceptionally met with—in four cases only. Pigmentation in the neighbourhood of the affected joints is a much commoner observation, and one of my drawings shows a rather curious pigmentation of the nails.

It was my original intention at this point to describe briefly the localised forms of arthritis to which reference has been already made. It must suffice to say that they are, in my opinion, entirely separate from the generalised disease, and that no small confusion has arisen from confounding the two conditions under one name. I have a series of about thirty cases in which the shoulder, or hip, or knee, or one hand has been alone affected, and many in which the arthritis has been limited to the basal joint of one or both thumbs. The subjects are nearly always at or past middle age, the average age being fifty-one; and in their history, exciting causes, course, prognosis, and, above all, in the absence of constitutional symptoms, they present striking differences from arthritis in a generalised form. In the same manner I venture to separate from the latter and more serious affection numerous cases of nodi digitorum, Heberden's nodes, and lastly joint arthritis, which, in my view, are middle-age or senile changes almost always the result of hereditary gout. (See Figs. 7 to 15, which represent joint changes in advanced life.) I have already dwelt upon the fact that in rheumatoid arthritis such changes as occur in the terminal joints usually result, not in enlargement, but atrophy.

FIG. 7.

Terminal phalanges of a female about sixty years of age (gouty).

I could wish that the clinical pictures I have endeavoured to delineate were clearer and more exact in their outlines, as becomes a presentment of fact. It remains, in conclusion, to ask what inferences can be properly drawn as to the true theory and pathology of rheumatoid arthritis. In the first place the causation is evidently complex, for innumerable and diverse facts testify to an inherited local vulnerability both of the nervous centres and of the joints, and this should be placed first among the causes; next come particular conditions of disturbance incidental to different periods of life; then there is the depressing effect of antecedent illness; and, lastly, the external causes (cold, damp, and injury), which, as we know, first, and chiefly, affect the feet and hands, in which, as a rule, arthritis begins. To my mind there is strong evidence that some implication of the nervous system

FIG. 8.

Terminal phalanges of a female aged fifty-five. The same, aged fifty-nine.

FIG. 9.

Terminal phalanges of a female aged sixty-five.

FIG. 10.

The same of a female about sixty years of age (gouty).

FIG. 11.

The same of another female about sixty years of age.

FIG. 12.

Terminal finger joint in a middle-aged female. Commencing nodes.

FIG. 13.

Middle finger of a female about sixty-five years of age (a subject of articular gout).

FIG. 14.

Gradual painless enlargement of terminal finger joints in a female aged fifty-three. (Strong family tendency to "crippling rheumatism.") The same in a female aged fifty-seven.

FIG. 15.

Terminal phalanges in a female about sixty-two years of age (gout on both sides). Burning and swelling of last joints since climacteric.

takes an essential contributory part. We have gone beyond the anatomical lesion, and a disorder is found manifesting not only a general progressive affection of the joints, but other characters, to which I have referred, pointing to changes in the nervous centres. It is also found that the disorder is most frequent and most acute at the period of greatest nervous instability—namely, in young womanhood and at the climacteric epoch. In the latter case it is less severe, sometimes confined to one-half of the body and subject to intermissions analogous to the fluctuating condition of the nervous centres at that epoch; and, moreover, in senile cases it often forms a part of a general nervous and mental breakdown, and the joint changes, according to the general character of senile disease, are less marked by inflammatory reaction than in younger life. One disease of the nervous centres is known in which organs of locomotion are affected, first by a brief inflammatory condition and then by degeneration and atrophic changes; this condition in infantile paralysis is confined to the muscles. Then again in another spinal cord affection, tabes dorsalis, we have occasionally affection of isolated joints with arthritis, in which the inflammatory stage may perhaps be veiled by anæsthesia of the parts. In the present case there is a disease of the organs of locomotion in which the inflammatory period stretches over years, a disease which is frequently associated with emotional or mental disturbance and which is commonest in women, during the years when such disturbance is most common; and in this disease, according to my belief, whatever may have been its genesis in ancestral maladies—gout, rheumatism, tubercle—yet, in the individual, nervous disturbance remains the preponderating element of causation and determines in rheumatoid arthritis a condition of neurosis almost akin to insanity, but of which the principal manifestation is found in the joints.

Strathpeffer Spa, N.B.

SOME CONSIDERATIONS ON THE CHLOROFORM QUESTION, SUGGESTED BY THE REPORTS OF THE HYDERABAD AND "THE LANCET" COMMISSIONS.

BY T. LAUDER BRUNTON, M.D., F.R.S.

(*Continued from p. 25.*)

ACTION OF ANÆSTHETICS ON TISSUES GENERALLY.

ALCOHOL, ether, and chloroform are all protoplasmic poisons. If pure alcohol be poured into a cut it will irritate the sensory nerves and burn like a red-hot iron, while it will coagulate and kill the blood, muscle, or any albuminous tissues, rendering them hard and unfit for the functions of life, and it will precipitate any soluble albuminous bodies. This can be well seen by mixing a little beef juice or albuminous urine with some pure alcohol, when the whole of the albumen will be thrown down as an insoluble precipitate. What we thus see happening in a test tube has been supposed to occur also in nerve cells, and the anæsthetic action of alcohol and its congeners has been supposed to be due to their causing a condition of semi-coagulation in the nerve cells, or at any rate such a change in the substances composing them, so as to render them sluggish and incapable of performing their functions. In the mucous membrane of the mouth we may see the same action of alcohol, for a little spirit held in the mouth will soon render the mucous membrane of the cheek white by causing superficial coagulation of its albuminous constituents. We can here notice how much stronger the action of chloroform is than that of alcohol, for it not only causes much greater irritation but much more rapid and excessive whitening, and, indeed, it causes similar whitening even on the skin.

LOCAL IRRITANT ACTION OF SOME ANÆSTHETICS.

On account of their action on albuminous substances both alcohol and chloroform have a powerful local irritant action, and if held long in the mouth or applied to a piece of skin denuded of epidermis will burn almost like a red-hot iron. If alcohol be applied to the skin and its evaporation prevented by covering it with oil-silk, it will cause a feeling of burning. This is still more marked in the case of chloroform, and the burning may become so painful that it can hardly be endured. If chloroform be put on the face or its concentrated vapour be inhaled it may cause much irritation of the sensory nerves of the face, nose and trachea, and through them affect reflexly both the heart and respiration.

ACTION ON THE NERVOUS SYSTEM.

But the vapour of all anæsthetics when inhaled in such dilution as to produce no local or reflex irritation affects the nerve centres first, and usually does so in a definite order, the highest and most complex going first and the most fundamental going last.[1] Judgment and power of thought disappear first, next sensation and voluntary motion, next reflex action, then respiration and, lastly, cardiac pulsation.

ACTION OF ANÆSTHETICS ON THE CIRCULATION.

If instead of putting liquid alcohol or chloroform into the mouth the vapour only is inhaled no pain and no whitening will be induced. We thus see that the effects of the drug upon the tissue depend very much upon its concentration. What is true of the mouth is also true of the other tissues of the body. Alcohol, ether, or chloroform will destroy any one of them if applied to tissue in a concentrated form, but when diluted will act rather as a stimulant, and will produce no marked injury. When chloroform is injected into the artery of a limb it will coagulate all the muscles and make the limb as stiff as a board; when injected into the heart, or when the heart is plunged into it, the muscular substance of the organ will be coagulated and its motion arrested, and if the heart of a frog be suspended in sufficiently concentrated chloroform vapour its movements will also cease; even nitrous oxide gas will kill the frog's heart if sufficiently concentrated.

EFFECTS OF DILUTION.

But the effect is different when chloroform is inhaled, because the respiratory centre in the medulla oblongata is more readily affected by chloroform than is the heart, and, therefore, when the blood has taken up a sufficient quantity the respiration is paralysed, while the heart continues to beat. In this respect the action of chloroform resembles that of ordinary asphyxia, whether produced by the inhalation of carbonic acid, by clogging of the bronchial tubes with mucus, by consolidation of the lungs in pneumonia, or by collapse of the lung from a penetrating wound of the chest. Both clinical experience and physiological experiment conclusively prove that chloroform, as well as alcohol, ether, nitrous oxide gas, and carbonic acid, all cause death when *gradually* inhaled by producing paralysis of the respiration, and that a period of time, longer in some cases and shorter in others, elapses between the stoppage of the respiration and the stoppage of the heart. But long before the point of danger has been reached anæsthetics—alcohol, ether, and chloroform—lower the blood pressure. This primary and constant fall depends, at least in part, on that dilatation of bloodvessels, which leads to a glow on the skin after alcohol has been taken. It is not dangerous; on the contrary, it is rather associated with the rapid circulation and consequent stimulant effect which is so well known in the case of alcohol, and, like the fall of blood pressure produced by nitrite of amyl, may be useful instead of injurious in the case of a feeble heart by lessening the resistance it has to overcome. Some very interesting observations on this subject were made by the late Dr. Anstie and recorded by him.

Dr. Anstie says:[2] "If alcohol acts as a narcotic it lowers arterial tension, increases the frequency of the pulse, and increases the dicrotism of the curve. Here, for example, is the effect of an experimental dose of half an ounce of brandy. (*Vide* Figs. 1 and 2.) A healthy young man

FIG. 1.

Pulse of a patient suffering from typhoid fever.

[1] Hughlings Jackson: Croonian Lectures, THE LANCET, March 29th and April 12th, 1884.

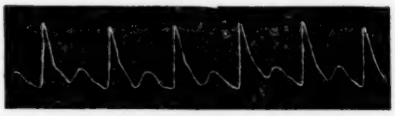
[2] THE LANCET, Sept. 28th, 1867.

FIG. 2.

The same after the exhibition of half an ounce of brandy.

(*vide* Fig. 3) was experimentally intoxicated with fifty-six ounces of claret at 8 per cent. absolute alcohol (equal to four ounces and a half of absolute alcohol). The patient was in the stage of "noisy hilarity" when this tracing was obtained. The heart force was really very weak, but

FIG. 3.



Pulse of a healthy young man intoxicated by fifty-six ounces of claret.

the arterial tension resistance was so low that, as you see, the curve was a large one." As the primary fall of blood pressure is a constant consequence of the administration of an anæsthetic, even of alcohol, and occurs, so far as we know, in *all* cases, in those who become unconscious without a single bad symptom as well as in those who do not, we may dismiss it from consideration as a source of danger, and need not trouble ourselves much as to its cause. In all probability it is due, or chiefly due, to vaso-motor paresis, as held by the Hyderabad Commission, and proved by the experiments of Lawrie and Chamarette, of Hare and Thornton. It is probable that the fall may in some animals or some persons be aided by simultaneous weakening of the heart, as held by Gaskell and Shore. But whether this be so or not is of no practical importance in regard to death during anæsthesia, though it is of very great scientific interest. It is hardly necessary to add that this primary fall is carefully to be distinguished from that which occurs from an overdose, for if the administration of the anæsthetic be pushed too far all the functions will fail, and the heart will become feebler, the blood pressure will fall continuously, and its depression, at first slight and harmless, will finally become so great that the blood will cease to circulate and the animal will die.

ACTION OF ANÆSTHETICS ON THE PULMONARY CIRCULATION.

This subject was examined by the Glasgow Committee, consisting of McKendrick, Coats, and Newman. They found that the action of chloroform, ether, and ethidene upon the lungs consists in retardation and subsequent cessation of the circulation, first in the capillaries, then in the small arteries, and lastly in the larger vessels. The epithelial cells with their nuclei in the alveoli become invisible. The capillaries are contracted and their walls become less distinct, and the blood corpuscles present in them are partially dissolved. These phenomena are chiefly those of inflammation, due to the action of chloroform as an irritant. The consequences of arrest of the pulmonary circulation have already been considered under the head of death beginning at the lungs. When the vapour of any anæsthetic, even of chloroform, is sufficiently diluted its local action on the pulmonary circulation will be small; but if a concentrated vapour enters the lungs either from being driven in by artificial respiration or drawn in by a sudden deep inspiration it may prove a serious factor in stopping the circulation.

THE REAL DANGER FROM THE HEART.

The real danger which is dreaded, and most justly, by anæsthetists is not a mere weakening of the pulse nor even an occasional intermission, but a stoppage of the heart, which appears to be sudden and complete, which yields to no treatment, and persists in spite of all attempts to restore the cardiac pulsations. This may occur simultaneously with the failure of respiration, or may apparently precede it.

NATURE OF THIS DANGER.

The symptoms recorded are those of neuroparalysis, as given by Casper, and the question at once suggests itself, (1) Are these symptoms produced, as in Casper's cases, by suffocation; or (2) are they due to the shock of operation, or (3) are they really caused by the anæsthetic? Previous to the report of the Glasgow Committee it was generally believed that even though chloroform might weaken the heart its action was gradual, but that Committee observed in several experiments a sudden slowing or stoppage of the heart with a great consequent fall of blood pressure. These sudden, unexpected, and apparently capricious stoppages were attributed by the Committee to the action of chloroform. The cause of such stoppages was carefully examined by the Hyderabad Commission, which came to the conclusion that they were not due to the anæsthetic, but to irritation of the vagus by asphyxia. By the Glasgow Committee this action of the vagus was regarded as a source of danger; by the Hyderabad Commission, at the suggestion of Dr. Bomford, as a safeguard to the animal by preventing too much chloroform reaching the medulla. These opposite views have each experimental evidence in their support. The action of the vagus is indeed complex; it would appear that it may at one time be beneficial and at another prejudicial. It is certainly remarkable that in an animal like the rabbit, which may sometimes have difficulties in the way of breathing freely in its burrow, the vagus seems peculiarly easily irritated by stimulation of the nose or closure of the nostrils. Moreover, it is almost impossible to stop a healthy heart permanently by irritation of the vagus however strong or long continued. These facts seem to show that stimulation of the vagus is not dangerous, but rather beneficial so long as the heart is healthy. But, on the other hand, when an animal is suffocated and just about to die, the respiration and cardiac pulsations having both stopped completely, it has been found by Dastre and Morat[3] that the heart is not really paralysed, but is inhibited by the vagi, and when these nerves are cut it will again begin to beat. It would thus seem that just as the heart is failing the action of the vagus puts a final stop to it. Here the vagus seems harmful, and one would naturally think that if the division had been made earlier death might have been averted. But experiments showed that this was not so, the contrary being the case and the heart failing earlier. But whether we regard the effect of the vagus in stopping the heart as useful or prejudicial, the occurrence of such a stoppage during anæsthesia is a sign of danger because it indicates more or less interference either with the respiratory movements or the respiratory passages, a condition which, as Casper has shown, may lead either to death by asphyxia or by neuroparalysis (shock). The similarity between many cases of sudden death occurring during the administration of anæsthetics, and especially chloroform, and those of death by shock from simple strangling or throttling strongly suggests that they result from the same cause—viz., *neuroparalysis* due to interference with the respiratory passages.

ACTION OF CHLOROFORM ON THE RABBIT.

The objection is often brought against conclusions drawn from laboratory experiments on anæsthetics that the animals used were different from human beings. This is true to a certain extent, but the same objection may be made to applying to all men general conclusions drawn from any set of observations made on a certain number only of human beings. The truth is that most human beings react to chloroform in the way that dogs and monkeys do, but other people react more like rabbits. I have already mentioned that in rabbits the vagus is very easily excited, and these animals are very easily killed by chloroform. But there are two ways in which it can be used to anæsthetise rabbits with safety, and these two ways are as different as they can possibly be. The first way is to give the chloroform vapour in a very dilute state by putting the rabbit under a bell jar and allowing chloroform to diffuse very gradually into the air until the animal loses consciousness. This plan, though safe, is slow. The second plan is used for anæsthetising rabbits in the Pasteur Institute, and it seems both rapid and safe. A cloth nearly saturated with chloroform is wrapped round the rabbit's nose and head. For nearly a minute it ceases to breathe, and I believe its heart ceases to beat. Then it draws one or two long breaths and falls over at once, completely unconscious and fully anæsthetised. The way to kill a rabbit, during the attempt to anæsthetise it, is to combine careless administration with timidity, to use too strong a vapour to allow of its going off quietly—and alternately to withdraw and reapply the chloroform. The exact cause of death here I do not know, but

[3] Vide Dastre and Morat, who give the literature of the subject as well as original experiments. Archives de Physiologie Normale et Pathologique, 1884, série 3, tome iii., p. 1.

suppose it is due to the disturbance of the cardiac and circulatory apparatus by the shock of the irritant vapour at a time when the healthy balance of these mechanisms is disturbed by partial anæsthesia. The danger of such a course in anæsthetising human beings also has been pointed out by Dr. Robert Kirk, with whose practical conclusions I agree, but whose physiology I cannot understand, for he considers the cause of danger to be a backward whirl of the circulation, whereas physiologists, from the time of Harvey onwards, are accustomed to regard such a backward whirl as impossible.

WHAT HAPPENS IN A CASE OF DEATH FROM ANÆSTHETICS *per se*.

Whatever views may be held regarding the cause of *death* during anæsthesia it will be generally acknowledged that in the much more numerous class of cases of simple danger during the administration of anæsthetics the heart continues to pulsate for a varying time after the respiration has ceased. This indicates pretty plainly the broad physiological fact demonstrated by the labours of the Hyderabad Commission, and demonstrated, indeed, long before in the pages of THE LANCET by Mr. Wakley, the present senior Editor, in his younger days, that the heart centres are the most tenacious—the first to develop, the last to disappear in the human organisation. This physiological relation does not cease when an anæsthetic has been administered. In this report, under the head of "untoward" cases, those cases have been dealt with "in which more or less grave symptoms occurred, but which eventually disappeared on resuscitative measures being adopted." No less than 245 are noted in this report. The inhalers were in no way to blame, and "none were absolutely to be relied upon as a certain preventive of grave symptoms of toxæmia." The immediate symptoms in almost every case were either respiratory or circulatory, and it is to be noted that "in a very large proportion of cases the respiration failed before the heart or pulse showed signs of flagging." Likewise the measures adopted in resuscitation were in most cases those which were applicable to cases "rather of cessation of respiration than to those of cardiac failure." Pp. 1112-18 contain some interesting records. What usually happens is this. The respiration gradually fails, and when the administrator, whose attention, perhaps, has been otherwise engaged, comes to notice the respiratory movements he finds that they have ceased; but the heart is still beating, and usually, though not always, artificial respiration suffices to bring the patient round. This is the kind of death which chloroform pure and simple causes either in man or in animals. It is the kind of death which has been observed by the Committee of the Royal Medical and Chirurgical Society, by the Hyderabad Commission, and by almost all other physiological experimenters; but this is not the kind of death which is so much feared by anæsthetists. What they dread is the sudden cessation of pulse and respiration together or the stoppage of the heart before the respiration. This sudden death may occur almost as soon as the administration of the anæsthetic has begun, and long before the patient is under its influence; it may occur at a later period after a violent fit of struggling, and sometimes appears to come on just after a fresh quantity of chloroform has been poured on to the inhaling apparatus and a more concentrated vapour thus administered; it comes on sometimes at a late period in the operation, without any cause that can be definitely assigned; it comes on also just when the operation is finished and the patient is beginning to come out of the state of anæsthesia—the state at which vomiting is usually to be expected. The cases of simultaneous failure of heart and respiration are so comparatively few that other factors besides the mere anæsthetic may be looked for to account for the occurrence in such cases. The tables contained in the report give only fifty-eight such cases out of a list of 506 records. Further, many of these cases appear to indicate that very accurate methods of clinical observation have not at all times been employed in obtaining the records which are summarised in tabular form on p. 633 of the report.

SUMMARY OF EXPERIMENTAL EVIDENCE.

The tripod of life consists of the heart, the lungs, and the brain. The immediate cause of death consists either in failure of the heart (syncope) or of the lungs (asphyxia). The brain may cause either (1) heart or (2) lungs to fail separately, leading to (1) syncope or shock, or to (2) coma and subsequent asphyxia. The brain may (3) cause the heart and lungs to fail together (neuroparalysis). These modes of death are distinguished by their symptoms and post-mortem appearances. The symptoms of rapid asphyxia from stoppage of the respiration are nearly the same as those from sudden stoppage of the heart, because they are due in both cases to the respiratory centre in the medulla oblongata being deprived of arterial blood. In the first case—viz., failure of the respiration—this occurs because there is no arterial blood in the body at all, the whole blood in the body having become venous, and in the second, because the blood becomes venous in the medulla itself when it stagnates from stoppage of the heart, although that in the aorta may still be arterial. These symptoms are—(*a*) increased respiration becoming more and more violent and ending with (*b*) convulsions if the brain be not dulled. If the brain be dull either from the effects of accumulating carbonic acid, as in ordinary coma, or from the effects of a narcotic or anæsthetic, the respirations gradually become weaker and finally cease. Sudden and violent gasps just before death usually indicate stoppage of the heart and consequent irritation of the respiratory centre by stagnation of blood in it before it has lost its functional activity. In slow failure of the heart the face is likely to be pale, and in slow failure of the respiration blue or livid; but, as Casper remarks, in rapid failure of the respiration there may be nothing distinctive in the appearance. In death from neuroparalysis there is simple stoppage of every function at once. In asphyxia the right side of the heart and lungs are engorged, and the left heart nearly or quite empty. In death from syncope in neuroparalysis the right heart and lungs are not engorged and both sides of the heart contain no blood or only a little. All experimental evidence goes to show that anæsthetics, when given without interference with the respiration, dull the brain and never kill by neuroparalysis, but cause death by gradual failure of the respiration, the heart continuing to beat for some time after the breathing has stopped. Death by neuroparalysis is an exceedingly common result of interference with the respiration in cases where no anæsthetic has been given. It is therefore probable that when death occurs from neuroparalysis during the administration of an anæsthetic, it is not due to the anæsthetic *per se*, but to some other cause, such as interference with the respiration by chloroform containing irritant substances, or even too concentrated vapour of pure chloroform, by too close application of the inhaler, by interference with the respiration in some other way, or by the "shock" of an operation.

CLINICAL EVIDENCE.

SUDDEN DEATH.

1. "*Shock*."

The causes of sudden death, apart from anæsthetics altogether, are very imperfectly known. Sometimes a patient suffering from heart disease, and especially from fatty heart or aortic regurgitation, suddenly falls down dead. Most people are contented to say that the occurrence is due to failure of the heart, but they do not know the exact mechanism, nor do they know at all fully the mode in which death occurs from what is termed "shock." Death from shock was a frequent occurrence before the introduction of anæsthetics, and we are sometimes apt to forget that it may still occur, although anæsthetics have been administered. In the tables on p. 632 of THE LANCET report this is borne out, for it appears that Dr. Snow records forty-nine cases of deaths during the administration of chloroform as due, or probably due, to shock. From Hospital Records,[4] p. 633, sixteen such deaths are recorded as attributable to shock from some cause or other. The report states on p. 761 that "many instances occurred in which whilst comparatively trifling operations were being performed a fatal accident occurred." On p. 631 THE LANCET Commissioner continues: "In some cases the causes alleged do not appear to correspond with the symptoms given. Thus one death is described as due to 'syncope,' although it is stated that 'food was found in the

[4] THE LANCET, March 13th, 1893.

windpipe.'" There are numerous records of this kind. Again, on p. 634 cases are recorded "as having been due to syncope when from the symptoms and phenomena of narcotism described there was a strong presumption that the death was due to asphyxia." How far, therefore, the 154 cases recorded under the heading of "Syncope" may be due to shock originally it is hardly possible to estimate.

2. *Paralysis of the Nerves and Heart.*

The following cases are put down as paralysis of the heart or nerve centres, which implies the neuroparalysis which Casper defines as synonymous with shock. They are given here for reference—namely, Cases 130, 157, 163 199 204, 205, 225, 261, 269, 275, 343, 419, 437, 461, 513 547, and 594. The terms used for describing these deaths—"shock," "paralysis of the heart," "syncope"—practically mean the same thing. Distinction may be made between them when the patient is awake; but when under the action of anæsthetics it is for practical purposes impossible to do this. In a great number of the cases enumerated above it is quite clear that the respiration began to show signs of disturbance before the heart failed, and had proper attention been paid at once to the symptoms of alteration in this respect it is quite possible that the fatal results might have been averted. Notwithstanding this the cases have been reported as those in which the pulse and respiration have failed simultaneously. In several cases the operation was such as necessitated the patient being turned over, so that while performing this movement the respiration might be partially impeded by the position, and, at any rate, the manner in which the respiration was being carried on would not be so evident to the anæsthetist as with the patient in the supine position. Again, the operation, it will be observed, was in many cases performed upon the face, and naturally the administration of anæsthetics for such operations is more difficult than usual. The respiration might in such cases easily have been interfered with without being at once obvious to the administrator. Taking all this into consideration, it is most probable, from a perusal of those cases in which the pulse and respiration are recorded as failing together under chloroform, that some are erroneously so stated. Still is there a sufficient number of authentic cases recorded to support the general proposition that the simultaneous failure of the pulse and respiration does occur during the administration of chloroform. This symptom is one which indicates death from shock or neuroparalysis.

CLASSIFICATION OF CONTINGENCIES.

Various accidents may arise from the use of an anæsthetic. These may be due either to the anæsthetic itself or to the operation occurring during the administration of the anæsthetic. Deaths may occur in the first stage before anæsthesia has been effected and before any operation whatever has been begun. We may find deaths occurring during the stage of excitement which succeeds the first administration of an anæsthetic, or we may find them occurring during the stage of complete anæsthesia during recovery from the anæsthetic. To these deaths may lastly be added another class, those which occur two or three days after the anæsthetic has been administered. These usually take place in cases where the anæsthesia has been kept up for a considerable length of time, and are said by some to be due to changes in the heart and kidneys produced by the anæsthetic—a sort of secondary death. A study of the cases catalogued will bear out this classifications, which differs in some respects from Snow's.[5]

GROUP I. DEATHS ARISING BEFORE ANÆSTHESIA HAS BEEN EFFECTED.

It is important to bear in mind not only that anæsthetics in general may produce death from failure of the respiration, but that chloroform especially tends to aid the toxic action of venous blood upon the heart, so that an animal that has received chloroform dies much more quickly from chloroform *plus* venous blood than from venous blood alone. The death which asphyxia alone would cause is quickened by the administration of chloroform, whereas anæsthetics containing no halogen do not seem to have such an action to any great extent.

In the first stage of the administration of anæsthetics we occasionally find a patient dying at once before the operation has been begun. The following cases illustrate this point:—

No. (Series A.)	Notes.
23.	Patient died at once.
28.	Died "after four or five inspirations."
(Series B.)	
9.	Had scarcely made four inspirations.
32.	Died in an instant; removal of small tumour of gum.
34.	Died instantly.
63.	Pulse and respiration ceased at same moment.
64.	In a moment the patient was dead.
96.	After three or four inspirations respiration ceased.
104.	Patient died instantly without warning.
116.	Pulse stopped suddenly.
122.	Pulse failed and patient died immediately.
126.	Suddenly became rigid and pulse stopped.
153.	Died suddenly.
158.	Respiration ceased; died suddenly.
187.	Pulse and breathing suddenly ceased.
253.	" " " " " Scrofulous tumour of jaw (which jaw not stated).
275.	Pulse ceased; died instantly.

The symptoms in these cases are those of neuroparalysis, and in all probability may be rightly attributed to interference with the respiratory passages, such as sudden reflex closure of the glottis, having a result exactly like that of throttling.

The following cases have a bearing on this point, Nos. 5, 8, 10, 16, 22, 28, 30, and especially 54 of this group. A similar result would in all probability have ensued if, instead of putting a handkerchief with chloroform upon it before the patient's nose, a dry handkerchief had been simply pressed over the face so as to obstruct the breathing, or if the patient had been strangled by a cord round the neck. The same accident has often happened when pure nitrogen or hydrogen has been inhaled. But some deaths may be due to another cause—namely, mental impressions, which may arise either from the simple thoughts of the patient, sometimes, perhaps, aided by the smell of the anæsthetics, or even from simple irritation of the skin by a slight operation. As showing that mere mental impression will cause death, there is an instance recorded in which the physician felt afraid to give an anæsthetic to the patient, and the patient felt afraid to take it. In order to give a semblance of an anæsthetic, and if possible lessen the pain by suggestion, the physician placed a cloth over the patient's nose as if he were going to administer an anæsthetic, but poured upon it nothing whatever, yet the patient died from sheer fright. This condition finds further illustration in Case 517, on p. 914, with the accompanying footnote referring to the *British Medical Journal* case, Oct. 5th, 1889, page 773, where a case is recorded of a female insisting on taking chloroform for extracting teeth. "The dentist, pretending to comply with her wish, gave her eau-de-Cologne." After two or three inspirations she fell from the chair and died. We find also similar cases occurring where the patient has died immediately after a little chloroform has been given and the operation has just begun—the first stroke of the knife has killed the patient. But patients have died from the shock of very trivial operations without the administration of any anæsthetic whatever, and Sir James Young Simpson has recorded the case of a man who died simply from the slight incision necessary to open a boil. The cause of death in this case was "shock." The nature of shock, as I have already pointed out, is a very complex thing. At one time I was disposed to regard it as due to some sudden change in the distribution of blood, probably either from stoppage in the heart, dilation of the arterioles, or paralysis of the veins, so that the blood, instead of coursing through the arterial system, became accumulated in the venous system. There is one experiment, however, that shows that shock is due in a great measure to an influence upon the nervous system apart from the circulation. When a frog is decapitated it falls at once into a condition of shock apparently due to the action of the operation on the whole nervous system, and it does so whether the circulation be free or whether the heart be ligatured and the circulation stopped, although recovery occurs much more rapidly when the circulation is strong. Shock may be to a certain extent induced by mental impression, as was noticed long before the introduction of anæsthetics. In

[5] It is to be borne in mind that the causes of death are those assigned by the original reporters of the cases and not by the Commissioners of THE LANCET.

his book on "Gunshot Wounds" Guthrie tells us that when butchers were ordered to be bled they almost invariably fainted, whereas other people did not faint. The butchers apparently fainted almost at the first sight of blood, and Guthrie's explanation is that in the minds of butchers, who are engaged constantly in killing animals, the shedding of blood is connected inevitably with the occurrence of death. In the animals they slaughter death happens on all occasions, and the connexion was established in their minds so firmly that they thought whenever they saw the blood death was inevitable, and they fainted from psychical excitement.

SYME'S REASONS ADDUCED.

Professor Syme used to say that he had never seen in the Infirmary of Edinburgh a single case of death from chloroform. Now this was a great admission, especially by Professor Syme, because chloroform was introduced by his great opponent Sir J. Y. Simpson, and if any flaw had existed in his rival's statements Syme would have been sure to point it out. "The reasons for this," he said, "are twofold. First of all, we always use the best chloroform, and, secondly, we always give plenty of it." Now the second part of his advice was very forcibly illustrated when I was a student. A young lady was going to have her teeth put in perfect order by the dentist just before her marriage. A surgeon gave her chloroform. The young lady was well known in society, and the fact of her marriage was known very widely, and one may be quite sure that the chloroform was administered with the greatest possible care. She died while the tooth was being extracted. It is unlikely that the surgeon gave too much upon that occasion. Ten days afterwards this same surgeon gave chloroform a second time for a similar operation, and it is quite certain that if he had given too much on the first occasion he did not give it in too large quantities the second time, but the second patient died also. The reason why these patients died was almost certainly that they got too little chloroform. If it had only been pushed a little further so as to prevent shock in all probability they would have recovered.

As with alcohol, so with anæsthetics—one must push the anæsthetics so far as to paralyse the reflex nerve centres, through which shock is likely to occur. These then are some of the precautions to be used at the beginning.

EFFECT OF POSITION.

But shock is likely to occur much more readily according to the position which the patient is occupying. Cases bearing on position as a factor may be found on p. 1114; Nos. 20, 21, and 38 may be carefully noted; also on pp. 704 (No. 44) and 767 (Nos. 170, 771, 228, and 239). A mixture of chloroform and ether has been used in Case 8 (page 1437) for division of the hamstrings. The death is put down to "shock" rather than to the anæsthesia. When a man is in the upright posture bleeding tells much more quickly upon him than if lying down. A much greater quantity of blood can be withdrawn without the patient fainting when he is in the recumbent position, and when fainting does occur, from whatever cause, one of the first things usually done is to lower the head or even to put the patient in a sloping position, with the head at a lower level than the limbs, so as to make the blood flow towards the head. The patients should therefore always be, if possible, lying down or more or less recumbent, but never upright, when chloroform is being administered. It is in the dentist's chair that the greatest risks from anæsthetics occur.[6]

HOW TO COMBAT PSYCHICAL EXCITEMENT.

Psychical excitement ought to be combated as far as possible by an assurance to the patient that there is no danger, and also by allowing the anæsthetic to be very gently inhaled at first, so as not to cause any fear. If a cloth dipped in chloroform or a mask containing a quantity of ether be held before the patient's nose the psychical excitement is increased, and actual embarrassment of the respiration may thus be induced. In administering anæsthetics it is advisable to give the anæsthetic gently, so as to avoid exciting the patient's mental condition, and also to avoid irritating the upper nasal passages.

HOW IS SHOCK TO BE AVOIDED?

The question now arises: How is neuroparalysis or shock to be avoided in the first stage of anæsthesia? First of all it is clear that the towel or inhaler used should not be too closely applied at first to the patient's nose and mouth, so as to cause choking. It is well known that as patients become insensible they are able to inhale a stronger vapour without apparent disturbance than they can do at first. My late colleague, Dr. Patrick Black, in an admirable essay on chloroform, quotes a case in which two patients in good health had chloroform administered. The first one passed quietly into the anæsthetic condition; the second became excited and struggled, the arms became rigid, the face congested, and the respiration suspended by spasmodic fixture of the chest. The reason of this difference was that the chloroform was well diluted at first and the vapour strengthened afterwards. In the second the strong vapour was used at the beginning, the valve not having been altered after the first patient had been removed.

IRRITATION OF THE RESPIRATORY PASSAGES.

Care ought to be taken that only pure chloroform, free from any irritating products, is used, because decomposition products may cause by themselves spasm of the glottis apart from anything else. Deaths from this occurrence are not due, in the strict sense of the word, to the effect of the anæsthetic upon the system generally, but in all probability are caused by local irritation in the respiratory passages. This irritation is not necessarily connected with chloroform anæsthesia, but is due either to an impure preparation of it or to its faulty administration.

SPASM OF THE GLOTTIS AS A CAUSE OF DEATH.

I once had a curious experience. I was in a swimming bath, luckily for me only in about three feet of water. A drop of water got up my nostril, and at once intense spasm of the glottis came on. The chest was completely empty of air; and, although I put my hands upon my hips so as to get a purchase for the auxiliary muscles of respiration, it was only after a considerable space of time had elapsed that the spasm relaxed a little and some air entered the lungs. In this case a single drop of water getting into the nose produced this reflex spasm. A somewhat similar spasm may be produced by inhaling very strong liquor ammoniæ, but it is not so violent. Now, this kind of spasm is not at all uncommon during the administration of anæsthetics, and its existence is shown by a particular kind of stridor evidenced in the breathing. It is somewhat like the stridor of croup, or laryngismus stridulus, sometimes termed a "crowing inspiration," so that one of the risks here is danger from asphyxia due to the contraction of the vocal cords by spasm. Now, in my own case in the swimming bath, although at one time I seemed to be very near death, I came round very rapidly. If I had been in deep water I should have been drowned, and if I had been under the influence of anæsthetics I might not have come round; for they have the power of depressing the respiratory centre to a great extent, and at the same time of interfering to a certain extent with the heart as already described. An interesting case in this connexion is No. 19 on p. 1114. Another form of this kind of death is that recorded on p. 694, Case 4, in which the patient said "I choke," and immediately died. A second experience I have had may also be interesting as possibly throwing some light upon deaths which occur during recovery from chloroform anæsthesia, where the patient has had slight symptoms of vomiting, but where the glottis has not been mechanically obstructed by vomited matters. One day when walking sharply immediately after breakfast a little food regurgitated into my mouth. It seemed in some way to have caused reflex spasm of the glottis because, although no coughing occurred, I immediately became almost asphyxiated, unable to walk, and had the utmost difficulty in getting air into the chest. Spasm of the glottis such as occurred from this slight regurgitation might very possibly have proved fatal during an operation. The tendency towards this effect, which is developed in chloroform after prolonged keeping, has been demonstrated over and over again. Pure chloroform is very slightly irritant as compared with chloroform containing chlorinated compounds, and it is evident that freedom from such contaminations is an important element in the safe administration of chloroform. But the preceding report shows that it is not sufficient always to rely upon the purity of the chloroform as originally made, because if the bottle has been exposed to light, and possibly quantities taken out of it and poured back again several times, the chloroform is almost certain to undergo an amount

[6] The effect of posture on the blood pressure was shown by the Hyderabad Commission in Experiments 31, 32, 33, 40, 79, 81, 83, 104, and 106.

of decomposition and become irritating. To avoid this Professor Ramsay of University College has suggested that it should always be freshly distilled from caustic lime, but this precaution can only be employed in large hospitals, nor, indeed, is it usually required if a pure chloroform be got at the first and kept in a cool dark place in well-stoppered bottles, which should be small, so that the quantity they contain should not be long in being used up after the bottle has once been opened.

(To be continued.)

ON THE DISADVANTAGES OF MONOCULAR VISION.

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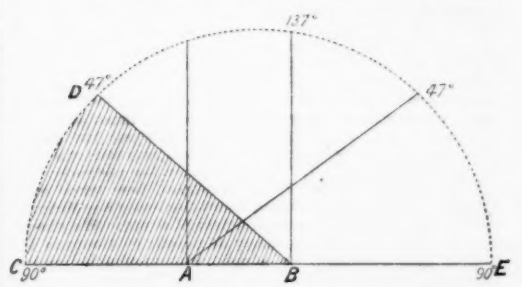
ALTHOUGH this subject has a very particular military application, at the same time few subjects possess a more important and practical interest from a public point of view. At the first glance it may seem somewhat unnecessary to lay great stress on the possession of binocular vision, provided that the vision of the sound eye is good; but when we fully inquire into the subject we shall appreciate the difference which really exists between binocular and monocular vision, and wherein lie the essential differences which separate the one from the other. Monocular vision imposes serious disadvantages on men who are following, or are anxious to follow, certain special occupations which demand for their proper performance a high degree of visual efficiency. We may be sure that nature has provided us with two eyes for a very good reason, and not merely reduplicated the organ in case of the loss or injury of one member, although this, no doubt, is a very wise provision. From our knowledge of the intricate arrangement of the fibres of the optic nerve and optic commissure without the eye, and the expansion of the optic nerve into the retina within the eye, it is evident that a very elaborate arrangement exists for the proper performance of binocular vision. Physiologically we know how perfect this system is and what comparatively slight causes may disarrange it. Evidently great loss of function must result from the absence or impairment of the sight of one eye. The tendency of the age is, and rightly so, to demand an increase in the severity of the tests for eyesight in those avocations in which a certain standard of acuteness of vision is considered necessary, and a more stringent application of the tests which actually exist; and not to regard this part as the least important of the physical examination of a candidate, and therefore to be conducted in a haphazard and perfunctory manner. It becomes more and more evident, not only to the medical profession, but also to the general public, that many distressing disasters which shock us from time to time—such, for instance, as railway collisions, collisions at sea, &c.—appear as if they must have been produced by the inability of some individual to recognise a signal, the colour of a lamp, or the relative position and distance of vessels. The conflicting and unsatisfactory evidence which too often follows at the subsequent inquiry into the causes of such accidents frequently appears to point to this solution as the only feasible explanation. The case is still further, unfortunately, liable to be left in doubt by the loss of the individual primarily responsible for the accident, and the inability, therefore, to completely clear up the case by physical examination. The obvious duty of medical men entrusted with the application of the tests for visual acuteness is not only to know how to apply the tests, but also the exact qualities of the vision required, and to thoroughly comprehend what constitutes reliable vision in the case of men who are to be entrusted with responsible positions where good sight is a necessity. In studying the phenomenona of binocular vision we are aware that when each eye is directed towards an object the eyes are slightly turned inwards, so that the central rays from the object fall on the yellow spot of each eye; if this were not so diplopia would result. If the object is solid certain parts of the image are focused on corresponding parts of each retina. Images of certain other parts of the object are formed in each eye singly. The result is, however, that a combined impression of the object is presented to the brain. It follows from the mental impression produced that binocular vision gives information on three heads—namely, the length, breadth, and depth or thickness of the object observed. The relative position of a series of objects situated at different distances from each other will also be discerned. Now, if one eye alone is used we shall find that only the length and breadth of the object are discerned, and that the third factor—viz., depth or thickness—is wanting. The power also of distinguishing the relation of the various objects in the landscape is also in a large measure lost. A series of objects at various distances from each other will consequently appear as if they were on the same plane, and will resemble in this respect a photographic picture. These defects of monocular vision can be remedied to a certain extent by intelligence, practice, and experience.

The fact that the acuteness of vision is duller in monocular than in binocular vision is also well established. The alertness or quickness of vision is also sensibly diminished. Another immense disadvantage of monocular vision is the contraction of the field of vision which this necessarily implies. In experimenting with the perimeter on the field of fixation it will be found that the prominence of the nose absolutely limits the field of fixation on the inner side, and therefore the field does not reach in this direction a greater extent than about 45°. If the field of fixation be taken for each eye separately, it will be found that about from 10° to 15° are added when both eyes are used. Perhaps, however, the contraction of the field of vision is more clearly shown when the field of indirect vision is taken for each eye separately in the horizontal plane, and the two charts are shown together as in the accompanying diagram. It will be found



that each eye is capable of about 90° of peripheral or indirect vision in the horizontal plane on the outer side, and about 47° in the same plane on the inner side. If both eyes were used the indirect vision would be equal to about 180°. One eye acting alone is capable of about 137°, and therefore the actual amount of the field of vision lost when one eye alone is capable of seeing is about 43°. This is shown in the diagram by the shaded part.

I have mentioned that the alertness of vision is less in monocular vision. We must also bear in mind that the alertness of vision for colours is also sensibly diminished in monocular vision. The brightness and saturation of the colour appear less than when both eyes are used. It will be apparent from what I have already said that certain disadvantages result from monocular vision. These may be summarised as follows: (1) loss of power to interpret the relative position of objects; (2) contraction of the field of vision; (3) decrease of acuteness of vision; (4) decrease of alertness of vision; and (5) diminution of alertness for colour vision. To these I may add two purely military objections—viz.: (6) difficulty in firing from the left shoulder, as proposed in cases where the right eye has been lost or damaged; and (7) liability to catarrh of the socket when an eye has been enucleated. I will now examine a little more closely into each of these disadvantages and try to assess the actual amount of disability they impose.

1. *Loss of power to interpret the relative position of objects.*—It will at once occur to us that there are some special occupations in which it is absolutely necessary that this power should be present. The impairment of it, from a military point of view, would lead to great loss of efficiency. In the first place a soldier, to be a good marksman—which, after all, is one, if not the most important, of his qualifications—must be able to judge the distance of the mark at which he wishes to fire. In practice this is very often a fixed distance, and he knows without any effort of judgment to

what distance to sight his rifle. If, however, he be afflicted with monocular vision and has to judge the distance, as he has to do in certain exercises in peace and nearly always in actual warfare, he will find very great difficulty. A soldier judge the distance of an object a good deal by its relative size and relation to other objects. If he were the subject of monocular vision and the object were moving and altering its relative position to other fixed landmarks quickly, he would not be able to estimate with sufficient rapidity the distance for which to sight his rifle. Many minor defects would also come to light on parade, and his inability to properly appreciate distance would tell greatly against him. In seafaring life the dangers arising from this cause would be very marked. In a crowded water the safety of the ship depends on the officer in charge fully appreciating the relative position of his ship to others, and he instinctively relies on this power to tell him if he has room and time for certain evolutions. We can imagine no more serious defect for a seaman than the loss of this sense. Although its absence would be most detrimental in the case of the ships' officers, yet in a certain degree its loss would act prejudicially in the case of the men.

2. *Contraction of the field of vision.*—We have only to consider the question for a minute to be convinced of the vital objections that exist to placing reliance on the possessors of monocular vision in those positions where a high standard of vision is requisite. I have previously stated the amount of the contraction in the horizontal plane, and the exact loss not only that the direct but also that the indirect vision sustains in substituting monocular for binocular vision. I take as an example an incident in military life. Let us imagine the position of a sentry in a hostile country where a war is being waged against savage tribes. The whole attention of a man employed on such a duty should be directed to detect the slightest movement near his post, and by a timely appreciation of danger to prepare his comrades for attack. The experience gained from the history of our campaigns will probably suggest not a few instances where, in spite of the most close and attentive watch, especially in savage warfare, the enemy have been able to steal up to the position and deliver a most unexpected assault. If such instances are common with men of presumably full visual acuteness, how much more likely are they to occur when a man is seriously handicapped by the loss of part of his normal field of vision. We should be very wrong to trust the safety of a body of troops to the limited field possessed by a man with monocular vision. Supposing his attention to be directed to some object in front of his post, some 40° in the arc of normal vision would be entirely lost to him, and he would be absolutely blind to this extent. The same remarks would hold good as regards the sailor. The man on the look-out, on whose vision the life of the entire ship's company might depend, would be to all practical purposes blind to the extent mentioned when his direct vision was occupied by objects in front, and it is at once recognised how serious this loss of function would become under these circumstances. Even the best shipping companies are not as particular, perhaps, as they might be with regard to the acuteness of vision of their sailors, and it is impossible not to have an uneasy feeling when thinking, if this is so with the best, what must be the condition of the vision of some of those employed on the inferior lines.

3. *Decrease of acuteness of vision.*—I have previously stated that it is an undoubted fact that monocular vision is not so acute as binocular vision; the tests for eyesight as a rule admit of such a low degree of acuteness that we cannot afford to allow a still further reduction of this by substituting monocular for binocular vision. What, perhaps, is more important, however, is the loss of alertness of vision.

4. *Decrease of alertness of vision.*—This function is quite different from the mere acuteness of vision and deserves a greater measure of attention than is usually paid to it. It is the power to recognise with celerity objects presented in the visual field. The power to do this can be very greatly increased by practice. Soldiers and sailors should be trained in this respect. As an example of how much may be done in this way I may instance the rapidity with which signallers can with practice communicate by either flags, heliographs, or lamps. From a military aspect it is of the first importance that men who may be employed as sentries or vedettes should have this faculty fully developed. The gleam of a spearhead or the raising of a head for a moment over the brow of a neighbouring hill may be all the warning a sentry may receive of the presence of foes near at hand, and the ability to receive and distinguish aright such impressions may be of incalculable benefit to the force to which the man belongs. An engine-driver running at a high rate of speed has only a momentary glance at his signal, and this often in such states of the atmosphere as to interfere seriously with the normal acuteness and alertness of vision; if he fails to interpret correctly the signal the result may be a great disaster. This power is not less important to the sailor, who may be able by its aid in thick weather to catch a perhaps instantaneous view of a light, landmark, or neighbouring ship.

5. *Diminution of alertness for colour vision.*—This very important factor is liable to be overlooked in estimating the disadvantages of monocular vision. Many people who would not be described as colour-blind still have some confusion in detecting colours, and depend a good deal for their appreciation of the shade on the amount of luminosity. Any physical condition which diminishes the acuteness and alertness of colour vision must be regarded with concern, as any circumstance which would hinder the immediate recognition of a coloured lamp or signal, or cause any confusion in doing so, might lead to very serious results. The engine-driver, the ship's officer on watch, or the seaman on the look-out must be able, for the safety of the charge confided to him, to recognise, even under unfavourable conditions of the atmosphere, without any hesitation whether a given signal or light is red or green. When we consider the rate at which an express train may be running, the possibility of the light being hidden until close to a curve, and the varying states of atmosphere and illumination we shall understand the value of the alertness of colour vision. The question of the quantitative determination of colour vision is still in its infancy, and but little attention has been paid to it. The ingenious apparatus devised by Mr. Brudenell Carter and described by him in THE LANCET[1] is, however, a step in the right direction and affords the means to record accurately, if desired, the exact acuteness of colour vision. I shall not do more than draw attention to the two distinctly military disadvantages, explaining shortly the reasons for such.

6. *Difficulty in firing from the left shoulder if the right eye has been lost or damaged.*—The handle of the bolt projects from the right side of the new (Lee-Metford) rifle. In firing from the left shoulder, which, if the right eye is damaged, is the proper position, the bolt of the rifle is apt to catch against the belt and accoutrement on the left side of the soldier.

7. *Liability to catarrh of the socket if an eye has been enucleated.*—Under no circumstances would it be advisable to pass a man fit for active service if the eye has been removed. The dust, smoke, and dirt inseparable to a campaign would almost assuredly set up a catarrhal condition of the socket. Apart from all other considerations this would disqualify him.

I have hitherto limited my remarks to monocular vision due to the complete loss of the sight of one eye. I must not, however, fail to recognise the fact that many of the dangers attendant on monocular vision may be established in those cases in which the sight of one eye is normal or nearly so, while the sight of the other eye is bad. Although the effects of such are not so pronounced, perhaps they are not less serious. In such cases the better eye does practically all the work, and unless the loss of vision in the other eye is simply due to an error of refraction, which can be fully corrected, to all intents and purposes the person is devoid of binocular vision. It is therefore absolutely necessary in formulating tests for visual efficiency that the sight of both eyes should be tested separately and a limit placed on the loss of acuteness of each eye. The test, for instance, for candidates for commissions in Her Majesty's army is that the candidate shall read at least $\frac{6}{9}$ with each eye separately, and that the loss of acuteness, if present, shall be due only to an error of refraction and be capable of correction by lenses to $\frac{6}{6}$ in one eye and $\frac{6}{9}$ in the other eye, thus allowing only a small difference in the acuteness of vision between the eyes after lens-correction. Dissatisfaction is often expressed that, although a candidate may be emmetropic in one eye, yet if he fails to see $\frac{6}{9}$ with the other eye he is rejected. From the foregoing remarks it is seen why it is so desirable that a limit should be placed on the deficiency of sight of the worse eye. For the same reason strabismus is a condition which debars from military service, and should also cause disqualification in any occupation where a high degree of visual efficiency is required. Here, again, the field of vision may be seriously

[1] THE LANCET, March 17th, 1894.

interfered with, and, apart from the significance of strabismus in other ways, rejection on this ground alone is sufficient.

I have said enough, probably, in the narrow limits of the present article to demonstrate clearly the chief disadvantages of monocular vision. I might enter much more into detail and point out further the many occupations in which monocular vision is distinctly objectionable; their own experience will suggest many such instances to the readers. It is perhaps questionable if the full value of periscopic vision is sufficiently understood, and the amount of loss of function which any interference with it causes. As a practical suggestion in connexion with my remarks I wish strongly to urge the importance of a more thorough and systematic examination into the eyesight of the employés of railway companies and of the mercantile marine service. Much has, I know, been done in this way of late years, but much is still required to give greater security to the travelling public. The very great danger, especially in the case of the mercantile marine, of an inefficient examination should be recognised, and the Board of Trade pressed to place such restrictions as would prevent not only the officers but also the men afflicted with indifferent vision of one or both eyes from serving. Men who are employed in such pursuits should not only be tested on first appointment, but should also be subjected to re-examination at stated intervals. These examinations should be carried out by independent examiners specially appointed to these positions, and who thoroughly understand not only the application of the tests, but also the reason for imposing them, and the quality of vision they demand.

TWO CASES OF SEVERE TRIGEMINAL NEURALGIA DUE TO NASAL DISEASE.

BY M. P. MAYO COLLIER M.S. LOND., F.R.C.S. ENG.,
VICE-PRESIDENT OF THE BRITISH LARYNGOLOGICAL AND RHINOLOGICAL ASSOCIATION.

OF the numberless cases of "tic" recorded in the various journals and other publications an extremely small proportion have been attributed to nasal disease. In an immense majority of the recorded cases the nose has apparently never been examined at all, and this in face of the fact that there exists a ganglion called the spheno-maxillary or nose ganglion, and that this ganglion is closely associated with the main trunk of the second division of the fifth nerve, and distributes branches to almost the whole of the interior of the nose and naso-pharynx. Granted that a very large number of these cases of trigeminal neuralgia are due to peripheral irritation, common sense would suggest an examination of such an extensive surface of peripheral distribution as the interior of the nasal cavities. In the two cases I am about to relate the nose was never examined until I was consulted, and in the first case a distinguished surgeon had counselled the serious procedure of the removal of the infra-orbital nerve without looking into the patient's nose. To be brief, in the early part of last summer my colleague, Dr. Cagney, requested me to see a poor woman who was a martyr to facial neuralgia of a severe type and of some twelve years' duration, with a view to the examination of her nose. Even a breath of air, or, indeed, the slightest contact with lips, tongue, or face, would precipitate an attack of agonising pain, the patient moaning and grinding her teeth with the severity of the paroxysms. The removal of teeth and the exhibition of medicines and galvanism failing, an operation on the infra-orbital nerve was about to be performed just previous to my being consulted. My examination revealed extensive disease of the middle turbinated bone on the same side as the neuralgia. I sat down there and then in the presence of Dr. Cagney and removed with the cold snare the greater portion of the diseased structures. From that day and hour the neuralgia practically ceased, and, with the exception of a few slight relapses due to the accidents incidental to the healing process in the nose, the woman was and still is completely relieved of her misery. A short time after this another colleague, Dr. Leonard Guthrie, hearing of this woman's case and having under his care, in concert with Dr. Turner of the Regent's-park Hospital, a severe and intractable case of trigeminal neuralgia, kindly suggested that I would take the case in hand also and see what I could make out of it. Curiously, this was a repetition of the last case. The nose had not been examined. The disease had lasted four years and the attacks were becoming more frequent and more severe. In this case a marked deflection of the nasal septum would have baulked any but a skilled observer, but the probe told a tale of diseased middle turbinated bone with numerous polypi. These were at once removed, and but for one or two occasional twinges the neuralgia has disappeared, apparently never to return again. Both these cases were residents in the wards of the North-West London Hospital, and have been exhibited cured, after some months, before the British Laryngological Society, the North-West London Clinical and other societies.

Harley-street, W.

NOTES OF A CASE OF CONCEALED ACCIDENTAL HÆMORRHAGE.

BY WILLIAM BLIGH, M.D. LOND.,
LATE HOUSE SURGEON AND OBSTETRIC RESIDENT, GUY'S HOSPITAL.

ON Dec. 2nd, 1894, I was called at 4 P.M. to see a woman aged forty-three, the wife of a labourer, who gave the following history. She had had ten children and two miscarriages; seven children are alive and healthy, the last one having been born in October, 1893 She was of temperate habits, had enjoyed good health, and had had no previous trouble in her labours. She now considered herself to be eight months pregnant, her catamenia having been regular up till the last week in March, when the last period took place; she had noticed that she had not increased in size during the last month. Six weeks previously she had been alarmed by one of her neighbours waking her in the morning to tell her that another neighbour had fallen downstairs and injured herself. She dressed hurriedly in order to render assistance, but on reaching her kitchen she was seized with a sudden faintness and became conscious of a peculiar sensation, as though "something had turned over in her womb." After lying down for the day, however, the faintness passed off, and she went on in good health up till Dec. 1st. On the afternoon of that day she did a good deal of scrubbing, and in the evening had epistaxis, to which she was not liable. On the morning of the 2nd she was awakened at 6 A.M. by uterine pain, described as a "distended, stretched sensation," continuous in character, and accompanied by faintness and by an enlargement in the size of the uterus. This pain continued throughout the morning, and on attempting to rise about 2.30 P.M. to micturate she fainted, and I was accordingly sent for. On my arrival at 4 P.M. I found her anæmic, with dark circles round the eyes. The pulse was 126 per minute and of low tension. The uterus reached within three inches of the costal margin and was extremely tense to the touch, but not tender; there was continued uterine pain, with no rhythmical exacerbations. Per vaginam the cervix was found to be softened, the external os patulous, and the internal os closed. The finger could be coaxed through, however, and the membranes felt, with the fœtal head presenting. On withdrawing the finger a little bright blood was noticed on it, but whether this was the effect of dilating the os, or whether it had previously been passed into the vagina, could not be determined. A diagnosis of concealed accidental hæmorrhage being fairly obvious, the membranes were at once ruptured with a probe and the liquor amnii (unstained with blood) was let out, a drachm and a half of the liquid extract of ergot was given by the mouth, and the os dilated with the fingers. The uterus acted well, and at 8 P.M. a dead fœtus was delivered. The placenta was expressed, and with it two large clots were expelled. The fœtus was apparently about seven and a half months old and had evidently been dead some little time, the epidermis being sodden and easily detached, and the cranial bones loose; it measured 16¾ in. and presented nothing of note. On examining the placenta, which measured 6¾ × 5½ in., a roughly oval depression 4 × 3¾ in. was noted on it. This depression was half an inch below the general surface, and over it the normal placental structure was atrophied, producing a fibroid, nearly smooth base; it reached the point

of junction of the placenta and chorion at one point only, the latter being stained with clot for half an inch beyond. The opening in the membranes through which the fœtus had escaped was almost central. On examining the clots a portion of the smaller was found to be obviously old, being firm and partially decolourised, and this portion fitted with considerable exactness into the placental depression; around and on one side of this clot recent clot had been deposited. The larger clot, which measured 9 in. × 6 in. × 2 in., was recent. It would appear, therefore, that the original hæmorrhage six weeks previously had separated sufficient of the placenta to destroy the fœtus and had produced by pressure the depression noticed, and that a second hæmorrhage had given rise to the symptoms which caused the patient to seek medical advice. No local cause in the fœtus or placenta, and no general cause in the mother, could be found to account for the hæmorrhage. It only remains to add that the patient, though considerably blanched and with a pulse-rate of 142 immediately after delivery, made a steady recovery and was convalescent on Dec. 16th.

Caterham Valley.

RECURRENT CANCER OF THE STOMACH.

BY W. H. CARTHEW DAVEY, M.R.C.S., L.R.C.P. LOND.,
ASSISTANT SURGEON, CHILDREN'S INFIRMARY, LIVERPOOL.

IN THE LANCET of April 12th, 1890, I reported a case of carcinoma of the pylorus for which pylorectomy was performed, and in which the patient recovered, the operation having been done by Mr. Rawdon. I regret now having to report the death of the said patient, five years after the operation. I believe the case is unique, so far as recurrence and prolongation of life are concerned. Mr. Jacobson, in "Operations of Surgery," quoting Mr. Butlin, says: "All save one died in a period of from four to eighteen months. The exception was one of Woelfler's cases, which remained well for a year and then had recurrence in the cicatrix, which was operated on. Later, the glands of the groin became affected, and four years after the pylorectomy the patient was dying slowly of cancerous recurrence." The history of the present case is briefly as follows. After the operation the man remained perfectly well for three years and a half, with no dyspepsia or gastric trouble whatsoever, and could take any kind of food without discomfort, when in June, 1893—that is, just three years and eight months after the operation—he was prostrated with an attack of hæmatemesis. The hæmorrhage soon ceased with the usual remedies, and he apparently recovered perfectly. There was no tumour or sign of any fresh growth to be felt at the epigastrium. This attack of hæmorrhage was the first evidence we had of recurrence; it was, to say the very least, disappointing, as we were congratulating ourselves on the non-recurrence of the disease, hoping we had eradicated it, so long a time having elapsed since the operation (close upon four years). Some six months after the hæmorrhage symptoms of dyspepsia presented themselves, and one could now feel a small tumour just beneath the old cicatrix in the skin. This gradually increased in size. He began to lose flesh, and it was now evident that the disease was making rapid progress, for he was no longer able to sit up, and, taking to his bed, he gradually sank and died from suppurative meningitis and exhaustion on Dec. 21st, 1894. The necropsy showed a large excavating ulcer, with indurated edges and sloughy base, infiltrating nearly the whole of the mucous membrane of the stomach. The stomach was adherent to the liver, pancreas, and diaphragm—in fact, one had to remove these organs with the stomach, as the adhesions were so firm that it was quite impossible to dissect it off without tearing. There were no secondary growths in any of the organs. The disease appeared to be quite localised to the stomach. The suppurative meningitis would no doubt be due to septic embolism from the sloughing mass in the stomach. Microscopical examination showed the cancerous nature of the growth. Dr. Barendt, pathologist to the Royal Southern Hospital, very kindly assisted me at the necropsy.

Liverpool.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF OBSTINATE HICCOUGHING WHICH CONTINUED FOR TWELVE DAYS WITHOUT INTERMISSION.

BY P. SLEVIN, L.R.C.S., L.R.C.P. IREL.

ABOUT two years ago I was called to see a man aged seventy-eight, of remarkably fine physique, who had enjoyed good health all his life, with the exception of an occasional attack of gout. I found him suffering from great prostration, with gastric catarrh and hiccough. Thinking the latter was caused by the catarrh, I prescribed a suitable diet and gave him a mixture of bismuth with some morphia. On arriving next morning I found him more prostrate and the hiccough as persistent as ever, the latter symptom being as active during sleep as in a waking state. I tried chloral, bromide of potassium, hypodermic injections of morphia, and atropia over the epigastrium, ice pressure on the carotids, and, in fact, every remedy of any repute for that complaint, but each morning I saw him he was hiccoughing as persistently as ever. He then consulted a well-known London consultant, who wrote to me recommending a large blister over the sterno-mastoid; this I did not apply, as I thought the remedy too severe. On the evening of the twelfth day of the hiccough I thought of exciting a new reflex, so procured him a box of very pungent snuff. He took several pinches during the night, which produced sneezing. On the following day I found him in the best of spirits, being quite free from the hiccough. He has not had any return of the troublesome affection since.

West Drayton.

A CASE OF ACUTE ŒDEMA OF THE LUNGS.

BY HENRY WALDO, M.D. ABERD., M.R.C.P. LOND.,
PHYSICIAN TO THE BRISTOL ROYAL INFIRMARY.

ON June 12th, 1895, a male patient aged thirty-one was admitted to the Bristol Royal Infirmary. He was well nourished and of good physique. He told me he had been out of work for some time and had lived poorly, chiefly upon bread. There was no alcoholic history. He complained of pain in the chest after food and nausea. His temperature at the time of his admission was normal, but at 8 o'clock the same night it was 101·2° F. The following morning at 8 o'clock it was 100·6°, and at 12 noon 102·4°. There was no rigor or chilliness. The skin was dry. The legs were moderately swollen and "pitted" on pressure. He was somewhat anæmic. His back, abdomen, and thighs were covered with petechiæ, which I took to be purpuric. Upon examining his retinæ there were no visible hæmorrhages. The cardiac sounds were clear, with no audible murmurs. The gums were in a natural condition. The urine did not contain albumen. After being in bed for twenty-four hours he quite suddenly became breathless and cyanosed, a condition which was attended with incessant coughing up of a scanty pink frothy fluid. Râles were heard all over the chest, and he complained of feeling suffocated. This condition of things lasted for two hours and a half, when he died. At the necropsy (twenty-four hours after death) the liver was found to be soft and looked fatty. The spleen was large and pulpy. The stomach was empty and distended with gas. The intestines were almost empty. There were hæmorrhagic spots all through, from the œsophagus to the rectum, and in some parts of the small intestine the hæmorrhagic surface was rather widespread, extending for 6 or 8 inches in several places. The heart was normal, with the exception of the tricuspid orifice, which was rather distended, and the aorta was decidedly small in calibre. There were 2 or 3 oz. of clear fluid in the pericardium. The kidneys were healthy. The brain was normal, although the lateral ventricles were distended. Both lungs were most actively engorged with blood and very œdematous (fluid pouring out of an incision abundantly). There were no signs of infarcts. The left lung was adherent

to the chest wall. Such a case as this leads one to believe that "active congestion" of the lungs, distinct from pneumonia and from phthisis, is a real malady.

Clifton, Bristol.

A NOTE ON A SIMPLE MANNER OF OVERCOMING THE CATARRH CONSEQUENT ON THE ADMINISTRATION OF POTASSIUM IODIDE.

By GEORGE COHEN, M.B. EDIN.

I HAVE often observed that patients taking iodide of potassium suffered in a marked degree from "iodism," the chief symptoms being coryza with a sometimes profuse discharge, sneezing, pains over the frontal sinuses, swelling of any part of the mucous membrane of the mouth, and a sense of heat in the chest. The foregoing phenomena are identical with those attendant upon the inhalation of free iodine (Mitchell Bruce), and it has been observed that one is more likely to be attacked with catarrh if the iodide of potassium contains free iodine as an impurity. This seems to justify the belief that the catarrh of iodism is due either to iodine being secreted by the salivary glands or to the circumstance that iodide of potassium is broken up in the mouth after its secretion and free iodine liberated. The latter view is supported by Schmeideberg, who has proved that iodide of potassium in the presence of carbonic acid is decomposed, the latter being abundant in the expired air in the region of the salivary glands. Whilst taking charge of Dr. Herschell's out-patients at the National Hospital for Diseases of the Heart, I have been able to stop the catarrh in three well-marked cases by adding to the mixture (being in each case ten grains of iodide of potassium and half an ounce of water) five minims per dose of tincture of belladonna, my object being to reduce the salivary secretion, and in each case the result was satisfactory. Any antisialagogue would doubtless have a similar effect, but belladonna is, in my opinion, the most useful, as it can easily be given in the form of a mixture with the iodide, and in the small dose that is used in such cases it counterbalances the so-called "depressant" action of the potassium.

Hull.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GREAT NORTHERN CENTRAL HOSPITAL.

A CASE OF S-SHAPED DISTORTION OF THE SEPTUM NASI SUCCESSFULLY TREATED BY A SERIES OF OPERATIONS AND THE USE OF RETENTIVE APPARATUS.

(Under the care of Mr. W. SPENCER WATSON.)

THE account of this case of operation for deformity of the nose is of interest, as such cases do not often present themselves for treatment. The deformity resulting from an injury such as that described below is usually remedied soon after the accident by the surgeon who is called in, and at that time it is easy to replace the damaged parts. Mr. Watson's case shows how difficult it may be to remedy the displacement when some years have elapsed before application is made for relief and when the accident was inflicted at an early age.

A young woman aged nineteen was sent by Mr. Charles Wray to consult Mr. Watson about a twist of the nose to the left dating from early infancy. She was a well-grown and well-nourished girl of healthy and comely aspect, which, however, was marred by the want of symmetry of the nose. The twist commenced at the point of junction of the cartilaginous septum with the lower border of the nasal bones, which retained their central position. Both the upper and lower lateral cartilages of the left side were thrust outwards by a thickening of the left side of the septum, and were also more prominent than in the normal condition from thickening and enlargement. The disfigurement was, therefore, very marked, but there was also much obstruction to the breath-channels of both sides from thickening and twisting of the septal cartilage, the right side being, however, more obstructed than the left. This was due in great measure to the posterior convexity

Fig. 1

of the S-shaped curve being very pronounced in the back of the right fossa, and also to the presence of an enlargement of the inferior turbinal of that side. The patient was one of a family of nine, all of whom were healthy and without any facial deformity. She attributed the disfigurement to an injury received when an infant. She and her brothers and sisters were playing, and she was thrown to the ground, striking her nose with considerable violence.

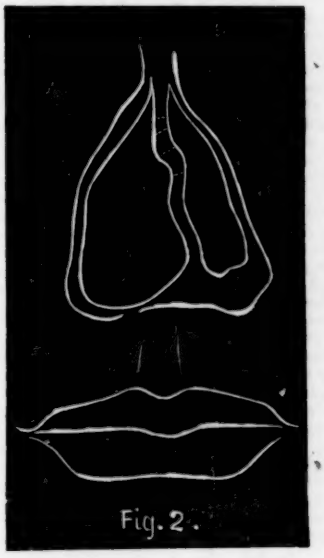


Fig. 2.

On April 26th, 1894, she was ordered to wear a No. 5 vulcanite nasal plug several hours each day in the left nostril. She continued to do so till May 4th, when Adams' septal compressor was substituted. These measures were taken as preliminaries, in order that the nasal mucous membrane might be rendered accustomed to their use after the intended operations. With the same view a nose truss was applied to the skin surface and worn for a certain time every

day. On May 10th chloroform was given by Dr. Malcolm, and the following operation was performed. A pointed tenotome was passed upwards and outwards in the left nasal fossa dividing the anterior part of the septum near its junction with the nasal bones. The section was entirely submucous except at the point of entrance of the knife, and was made parallel with the line of the dorsum. Adams' forceps were then used and effected a fracture of the cartilage at its line of articulation with the bony septum, and the latter was also fractured with the same instrument. The left side of the nose could then be forced into the middle line, but on removing the pressure it sprang back into its old position. The cartilaginous septum was found to be so much thickened on the right side that, in order to overcome its resiliency, it was necessary to incise it in the same general direction as on the left, and a longitudinal slice was cut away from this side. No perforation was made. Still there was a tendency of the septum to spring back into its faulty position. A portion of the lower edge of the recurved lower lateral cartilage in the left vestibule was therefore cut away where it presented a much thickened and unsightly prominence. A vulcanite No. 5 plug was inserted. At the same sitting some adenoid vegetations in the naso-pharynx were scraped away with the ring knife. The nose truss was applied after twelve hours and worn continuously. On May 17th there was a very slight twist to the left when the truss was removed. At the anterior end of the left vestibule a portion of thickened cartilage (probably consisting partly of thickened septum and partly of the recurved lower lateral cartilage united into one) was seen from the front and tended to drag the lower part of the nose over to the left. On May 24th chloroform was again given, and this prominence was removed. At the same time a dental "scaling" knife with the blade at right angles to the stem was passed up into the left fossa, and several deep cuts were made into the septum at right angles to its dorsal line, and in such a way as to divide a strong dorsal ridge which was here felt, and which evidently tended to render the distortion permanent. (Figs. 1 and 2.) These cuts were made down to the bone and through it at the position of the lower termination of the nasal bones, and as close to the middle line as the instrument could be made to penetrate. The skin, of course, was not divided. The nose was then brought into fair position and the left fossa was plugged with oiled lint. For a day or two after this operation the nose-truss was worn, but the treatment had for a time to be discontinued on account of severe neuralgia. The results of the operations up to this time were disappointing, as the following note of June 1st shows: "The deformity of the nose is nearly as great as before, the cartilage still curving to the left. She has much freer breathing through the right nostril, but her articulation has an 'adenoid' tone. The thickened anterior border of the septal cartilage, though not so conspicuous as it was originally, is felt to be much greater than that of the normal septum. Ordered to wear the 'truss' for two or three hours a day, but to discontinue the use of the plug." On July 12th, the twist to the left being still conspicuous, chloroform was again given, and the third operation as follows was performed. A portion of the left side of the thickened septum was shaved off by the tenotomy knife introduced through the left nostril, and sections made in it obliquely downwards and backwards, without, however, passing through it into the right side. The "scaling instrument" was then passed into the left nostril, and two or three incisions made in the bony septum high up, each cut being made at right angles to the line of the dorsal ridge. Adams' septum forceps was then passed, and the septum freely broken away from its anterior attachments in the middle line. The fracture involved both the bony and the cartilaginous portions. On passing the finger into the left vestibule it was found that there was a bony outgrowth from the outer wall and floor of the vestibule, but attached also to the septum and evidently impeding the restoration of the septum to its normal median position. (Fig. 3.) An attempt was made to divide this bony growth with the knife, but failed. Bosworth's nasal saw was then used, and two parallel cuts were made, extending about half an inch from before backwards, in such a way as to include between the cuts an oblong piece of bone about one-third of an inch long and one-eighth of an inch broad, which was then removed. Lint saturated with carbolised oil was then inserted into the nostril and retained there for twelve hours. On July 17th, the truss having been used since the last operation for several hours each day, the nose was in a central position and showed no sign of returning to its faulty position when the truss was removed. The outward contour was perfectly symmetrical. There had been no return of the neuralgia, or of any untoward symptoms, and very little pain had been complained of. From this date until Sept. 21st the truss was worn for an hour or two every day. The position of the nose remained central, with, however, a scarcely noticeable prominence of the left side. The patient and her friends were very well pleased with the result. There were still some adenoids in the pharyngeal vault, and she was, therefore, directed to apply with a throat brush a solution of perchloride of iron in glycerine night and morning. On Nov. 7th there was some post-nasal obstruction, and this was found to be due to hypertrophic enlargement of the inferior turbinal on the right side. A fourth operation was now performed. Cocaine was applied, and a portion of the hypertrophied turbinal of the right side was cut away by the use of Walsham's angular nasal scissors. The bleeding was not great, but

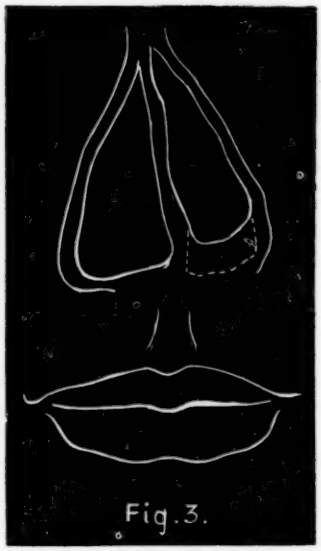


Fig. 3.

in order to avoid trouble the nostril was plugged with eucalyptus gauze. On Nov. 29th the patient said her breathing was free, and there were no pharyngeal crusts or other troubles such as she had previously experienced. On posterior rhinoscopic examination there was seen a somewhat prominent portion of the inferior turbinal of the right side. She was directed to use a spray of borax, soda, and common salt with oil of eucalyptus globulus. On Dec. 12th the obstruction in the right nostril had quite disappeared and the nose remained symmetrical. When last seen, on March 14th of the present year, the improvement in her condition remained. She was seen by Mr. C. Wray, who was much pleased and rather surprised at the result. She was seen again on May 12th, when the improved appearance was still maintained and the breath channels remained perfectly free.

Remarks by Mr. SPENCER WATSON.—This case presented complications and consequently required a series of operations

FIG. 4.

a, back view, and *b*, side view of scaling instrument. The width of the blade is somewhat exaggerated in the illustration.

which, though tedious in description and some of them novel, were not severe and were not complained of as painful by the patient. The principal novelty in the treatment was the use of the rectangular dental "scaling" instrument for the division of the partly bony and partly cartilaginous dorsal ridge. (See Fig 4.) In order to appreciate this part of the

treatment it must be borne in mind that the upper lateral cartilages, which are generally described in anatomical works as separate from the septum, are really united to it and form with the septal cartilage a single piece, the ridge of the dorsum of the nose being, in fact, the union of these lateral pieces with the septum, and when, as in the present case, this ridge is thickened and distorted it offers a formidable obstacle to the ordinary methods of restoring the symmetry of the parts. The ordinary resiliency of the cartilage is much greater the thicker it becomes. Hence it is necessary to make cross cuts in it at right angles to the line of deviation, and then by the use of the nose truss and plugs to retain the divided ridge in position until the faulty resiliency and distortion have been overcome by union in the central position. This method was resorted to rather late in the case because my attention was in the early period diverted to the distortion of the deeper parts, which were much thickened and seemed to offer the greatest resistance to attempts at restoring symmetry. Had I recognised the importance of the thickened dorsal ridge at an earlier period the two methods of operating might with advantage have been combined in one proceeding. This would have shortened the treatment, but might also have rendered the use of retentive apparatus less easy. On the whole I think in a similar case much the same methods would have to be employed, but the attack on the dorsal ridge might be commenced sooner and with more precise aims in the light of the experience gained. The nose truss employed in this case was a modification of Mr. Adams's depicted in the second edition of my work on Diseases of the Nose at p. 251. The pads, however, were not kept in their positions by levers and cogwheels, but by springs attached to the frontal band. I am indebted to Mr. Kendall, house surgeon of the Great Northern Central Hospital, for his skilful assistance in the management of the case. The figure of the dental scaling instrument and the instrument itself were kindly lent to me by Messrs. Ash and Sons of Broad-street, Soho.

Medical Societies.

OBSTETRICAL SOCIETY OF LONDON.

Adjourned Discussion on the Development of the Human Placenta.—Placental Polypus.—Exhibition of Specimens.

A MEETING of this society was held on July 3rd, Dr. F. H. CHAMPNEYS, President, being in the chair.

On the resumption of the adjourned discussion on Dr. Eden's Demonstration on the Development of the Human Placenta, Dr. DAKIN asked Dr. Eden how the specimens of placentæ and deciduæ from which the sections were made had been obtained and prepared, so as to exclude the possibility of the hæmorrhages into the decidua in the earlier stages being artificially produced. It was highly probable that the hæmorrhages were normal, for the process thus resembled that of the formation of the menstrual decidua, which was another example of intense activity of function. The resemblance was interesting as bearing on the connexion of ovulation with menstruation. Hæmorrhages as part of an early stage in the formation of the placenta were known from the observations of Hubrecht and others to take place in the trophoblast of some of the lower animals, where cleavage occurred in this part of the chorion, and produced spaces which became filled with maternal blood. Dr. Eden had said that what had been described as multinucleated cells by many observers were practically always sections of buds of the chorionic villi lying in the sinuses. These cells had, however, been demonstrated in the sinuses of the uterus itself and more deeply than the villi were likely to penetrate, and had been described by Helme as collecting around the vessels in the uterine wall towards the end of pregnancy in connexion with the hyaline degeneration of the sinus epithelium which took place then. This change had been first described by Friedländer and in the Society's Transactions by Sir John Williams.[1]—Remarks were made by Dr. GRIFFITH and Dr. GALABIN.—Dr. EDEN, in reply, said that the specimens of early ova shown at the last meeting might be fairly regarded as healthy; they were examples of abortion occurring from accidental causes, not from intra-uterine disease. In answer to Dr. Galabin, he said that the maternal vessels became to a great extent opened up by the destructive action of the trophoblastic buds, and this process was the principal factor in the development of the circulation through the intervillous spaces. Similar changes had been described in the development of the placenta of many other animals besides man. The question of fibrinous and calcareous degeneration in the placenta he hoped to discuss in a subsequent paper.

Mr. ALBAN DORAN read a paper on Placental Polypus. In examining the clots from tubes which he had recently removed in cases of suspected tubal gestation, he compared the clots with sections of true placenta and of retained placental fragments. He also examined, for the second time, sections from a polypoid growth found in the uterus of a woman aged twenty-nine who died many years ago after the removal of a cystic kidney by Sir Spencer Wells. There had been no hæmorrhages; in fact, the patient believed that she was pregnant on account of the absence for several months of menstruation. The uterus, with the polypus attached to its wall, and the ovaries showing a large corpus luteum on one side, are preserved in the Museum of the Royal College of Surgeons of England (No. 4659, Pathological Series). In 1877 Mr. Doran believed that the polypus was a cavernous angioma. Dr. Boldt has, it must be noted, quite recently detected a tumour of that kind in the uterus. The College specimen, however, proved on careful examination to be made up of placental tissue. It is a true placental polypus. In all other recorded cases uterine hæmorrhage was present. He dwelt on recent opinions concerning placental polypus. According to the recent researches of Klasson of Kieff, and Lejars and Lévi of Paris, the so-called "fibrinous polypus" is only a form of placental polypus, if not identical, the placental tissue having been overlooked. He finally referred to Hartmann and Toupet's important investigations on the results of retention of placental tissue when, instead of septic changes, organisation occurs. They find that this tissue may develop into innocent deciduoma (that is, placental polypus), hydatidiform mole, and chorion-celled sarcoma. This last growth is the "malignant deciduoma," or cancer following gestation, which has been so frequently described of late, on indisputable evidence, by Continental authorities. Mr. Doran asked why, if this grave disease be so frequent in Europe, it has hitherto escaped the notice of British teachers and practitioners.—Dr. HERBERT SPENCER had six years ago met with a case which he believed to be of the nature of the deciduoma malignum of Continental authorities. A woman about twenty-five years of age died two months after delivery with symptoms of septicæmia and signs of uterine cancer. During life several pieces of putrid "placenta" had been removed. At the post-mortem examination growth and ulceration were found in the situation of the placental site, where the wall was almost eaten through, and also (unlike most cases) in the cervix. The microscopic examination of the uterine growth was somewhat unsatisfactory, but it appeared to be sarcomatous. In the lungs there were many secondary growths, some as large as a walnut; under the microscope they were evidently sarcomatous. He had hoped to meet with another case in which the microscopic examination of the primary growth would be more satisfactory; but as the above-mentioned appeared to be the only case of the kind in this country he would be happy to bring it before the society. The specimens were in University College Museum.—Remarks were made by Dr. GALABIN and Dr. GRIFFITH.—In reply to Dr. Galabin Mr. ALBAN DORAN said that hydatidiform moles undoubtedly displayed malignant characters in certain cases. They were myxomatous, but it must be remembered that general pathologists are not all agreed as to the limits of the term "myxoma." Sometimes mucoid tissue was normal and not in any sense a new growth; sometimes it was clearly associated with sarcoma. Dr. Griffith's tumour seemed to be a true fibrinous polypus, as no placental tissue was detected in its substance. Dr. Herbert Spencer's case was of the highest interest; it appeared to be the first instance of malignant deciduoma in the British Isles. In conclusion, Mr. Doran recommended careful inspection of all specimens of malignant disease of the uterus from patients under forty already preserved in museums. In future, in any patient of this kind close inquiry should be made as to the occurrence of abortion within a few years of the appearance of evidence of malignancy.

[1] Vol. xx., p. 172.

The following specimens were exhibited :—

Mr. DORAN (for Mr. BRADBURY and Dr. LOWE) : A Monster, Acardiacus Paracephalus.

Dr. BLACKER : Uterus affected with Fibroids and Carcinoma of the Cervix obtained eight years after Oöphorectomy.

Mr. TARGETT : (1) Abscess in Ovary caused by direct Infection through Connective Tissue ; and (2) Casts of Vaginal Mucous Membrane.

Dr. AMAND ROUTH : Macerated Skull of an Anencephalic Fœtus.

Dr. CULLINGWORTH : Pedunculated Fibro-myoma of the Broad Ligament with Twisted Pedicle.

Dr. PLAYFAIR : Tubal Abortion.

Dr. GALABIN : (1) An Improved Form of "Sanitary Towel" ; and (2) Pregnancy in a Rudimentary Uterine Horn.

In the report of the proceedings at the June meeting of the society it should have been stated that the President announced that the General Medical Council had approved of a form of certificate to be given to candidates successful at the society's examinations in midwifery. Copies of the form were handed round.

OPHTHALMOLOGICAL SOCIETY.

The association of certain forms of Myopia with Disease of the Nose and Pharynx.—Exhibition of Cases.

THE annual general meeting of this society was held on Thursday, July 4th, Mr. E. A. BROWNE, the Vice-President, being in the chair.

Dr. RAYNER BATTEN read a paper on the association of certain forms of Myopia with Disease of the Nose and Pharynx. After referring to a former paper read before the society in July, 1893, in which he held that certain constitutional diseases produced myopias distinguishable and differing from each other according to their cause, he proceeded to describe a special form of myopic fundus which he associated with certain diseases of the nose and pharynx. The chief characteristics of this form of myopia were (1) the existence of localised posterior staphylomata at or in the immediate neighbourhood of the optic disc, or on the nasal side of the fundus ; (2) the tilting of the optic disc in the direction of the staphyloma ; and (3) the œdematous condition of the more prominent margin of the optic disc. This œdema, or "pseudo-neuritis," he considered as secondary to and caused by the tilting of the disc. The conditions of the nose and throat with which he associated this form of fundus were adenoid vegetations, enlarged tonsils, deviation of the septum, blows on the nose and forehead, ozœna, syphilitic disease of the nasal bones, and chronic otorrhœa. He quoted cases in which myopia had immediately followed the onset of some of these conditions, and in conclusion said that the presence of the œdema was generally a sign that the cause was still in active operation, that the visual acuity was seldom good in these cases, even when the degree of myopia was low, and was especially bad when the staphyloma was on the nasal side of the optic disc, that the whole condition was one indicative of a progressive myopia, and that the œdema and tilting both tended to disappear with the progress of the myopia.—The CHAIRMAN, in commenting upon the subject of the paper, considered that the evidence adduced was insufficient to convince those who had not given it special attention. Many constitutional causes required to be eliminated, such as scarlet fever or rheumatic fever, as well as other exhausting diseases, before myopia could be reasonably attributed to a local lesion.—Mr. SPENCER WATSON was disappointed that Dr. Batten had not put forward a theory to explain the relationship between nasal disease and myopia. He was disposed himself to regard both conditions as dependent upon some common constitutional cause. He quoted instances where interstitial keratitis had been followed by myopia in constitutional syphilis, indicating, he thought, that there was softening of the whole eye.—Dr. BATTEN, in reply, said he had dealt with constitutional causes in a previous paper. The connexion between the sphenoidal cells and fissures and the blood supply to the eye was very close. The eyeball should be regarded as an end organ, and interference with its blood supply was likely to lead to changes analogous to those produced in clubbed fingers.

Mr. ADAMS FROST showed a complete set of instruments which had belonged to an Indian oculist, and which had been presented to the society by Surgeon-Colonel Drake-Brockman. Describing the method of operating, he stated that there was no attempt at asepsis or even ordinary cleanliness ; the lower lid was everted, a puncture made in the ciliary region with a lancet, and the lens couched by passing an instrument through this incision. The whole performance was done under a cloth, and most eyes were lost by panophthalmitis or secondary glaucoma.—Surgeon-Colonel DRAKE-BROCKMAN said that these instruments were handed down from father to son for generations and were extremely difficult to secure. Less than 10 per cent. of the operations could be considered successful cures.

The following cases and card specimens were shown :—

Dr. E. H. CARTWRIGHT : Modification of Thomas's Arrangement of Holmgren's Wools.

Mr. FISCHER : Symmetrical Ulcers of both Corneæ.

Mr. D. MARSHALL : Double Enophthalmos.

The following gentlemen were elected as office-bearers and members of the Council for the session 1895-96 :—President : E. Nettleship. Vice-Presidents : Stephen Mackenzie, M.D., Henry Power, Edgar A. Browne (Liverpool), Thomas Barlow, M.D., G. Anderson Critchett, J. B. Story (Dublin), John Couper, G. A. Berry, M.D. (Edinburgh). Treasurer : George Cowell. Secretaries : Samuel Herbert Habershon, M.D., John Bowring Lawford. Librarian : W. Adams Frost. Other members of Council : M. A. Adams (Maidstone), Charles E. Beevor, M.D., T. H. Bickerton (Liverpool), Ernest Clarke, M.D., A. Deas Davidson, M.D. (Swansea), E. F. Drake-Brockman, A. Hill Griffith, M.D. (Manchester), Gustavus Hartridge, Joseph Nelson, M.D. (Belfast), D. Argyll Robertson, M.D. (Edinburgh), A. E. Sansom, M.D., James Taylor, M.D. At the same time Dr. J. S. Bristowe, F.R.S., was elected an honorary member of the society.

MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

Exhibition of Cases.—Treatment of Fractures.—Ruptures of the Pancreas.—Alcoholism and its Effects.

THE thirteenth meeting of this society was held on July 3rd, Dr. CLOUSTON, President, being in the chair.

Dr. W. ALLAN JAMIESON showed a case of Hydroa Vacciniforme in a girl aged seven. The eruption was limited to the exposed parts—the hands and face. It had persisted two years, being worst in the warm months. The aspect of the rash closely resembled impetigo contagiosa. A case of Ichthyosis illustrating the effects of purely local treatment was also shown.—Dr. NORMAN WALKER showed a case of Lichen affecting the back in a small boy.—Dr. JAMES showed a boy who had been trephined for a Compound Fracture of the Skull some months previously. There was now a considerable interval in the bony skull. The pulsation of the brain could be easily perceived, and was demonstrated by means of a water manometer. The column of water rose and fell with the pulse and with the respiration. On muscular effort and holding the breath the water rose. Very slight mental effort was required to produce extra bulging and extra pulsation. The slightness of the stimuli necessary to cause alteration in the pressure was remarkable. Dr. LEITH showed :—1. A Ruptured Pancreas and Rupture of the Duodenum at the duodeno-jejunal junction ; a Rupture of the Liver ; and a Rupture of the Kidney, all caused by direct violence. 2. A Brain with Multiple Tuberculous Tumours of the Cerebellum. The symptoms during life gave rise to doubt between bulbar paralysis and general paralysis of the insane. The brain also showed chronic hydrocephalus from pressure on the veins of Galen. 3. Photographs and specimens from a case of Omental Hernia, Perforative Appendicitis, and Retro-cæcal Abscess.—Mr. A. G. MILLER showed an Abscess in the Temporo-sphenoidal Lobe, the result of middle-ear disease.—Dr. EDWARD CARMICHAEL showed a specimen of a Sarcoma of the Skull. The convolutions of the brain were compressed, but there had been no symptoms till within a few weeks of death.

Mr. A. G. MILLER read a paper on the Treatment of Fractures near a Joint aided by Massage and Movement. He quoted the recent opinions of Mr. Arbuthnot Lane and Mr. Marmaduke Sheild in relation to the unsatisfactory nature of the ordinary treatment of fracture near a joint. He agreed that the present treatment was unsatisfactory, as the limb was frequently stiff and comparatively useless for

a considerable period. He believed the cause of this to be the long period of rest maintained for the treatment of the fracture. In the case of a fracture near a joint there was generally a double injury—both joint and bone were injured. The fracture was treated and the sprain was ignored. Rest alone would not cause ankylosis, but rest and injury would. In the case of a Pott's fracture, for example, besides the fracture of the tibia there was tearing of ligaments, damage to synovial membrane, and effusion into and round the joint. Such an injury should be treated with rest for the fracture and movement for the joint. A box splint should be applied, taken down twice a week and massage applied, and passive movement carried out with every precaution. The advantages of such a combination of rest, massage, and passive movement were that swelling was rapidly got rid of, adhesions were prevented, and time was saved. A patient was shown on whom this treatment had been carried out with excellent results.—Mr. JOSEPH BELL from a study of recent literature thought the young surgeons were laying on themselves a burden of responsibility which they had no right to do when they implied that fracture should be treated with absolute success. There were certain fractures in the vicinity of joints from which, do as they like, they would have bad results. In fractures at the elbow in young people he thought that they should be kept quiet for one day for each year of the child's age. He never used splints in Colles' fracture. He had treated a case of Pott's fracture recently with full and free massage from the beginning, with excellent results.—Dr. LAING said that as soon as effusion into the joint was over massage should be begun, and in the case of a sprain movement might be begun on the second or third day. A patient with a bad sprain should be able to walk in a week. Fracture was much better and sooner mended with massage than if left in a stiff splint the whole time.—Mr. ALEXIS THOMSON and Mr. STILES spoke.

Dr. LEITH read a paper on Ruptures of the Pancreas, their relations to Pancreatic Cysts, with some remarks upon Treatment. He remarked on the position of the pancreas and the difficulty of reaching it by injury. In most cases there was rupture of a more important viscus, but in two recorded cases in which this did not take place there was little hæmorrhage, and had the patient survived there was no reason why the rupture should not have healed. What hæmorrhage there was was into the sac of the lesser omentum, and a cyst might be formed. The post-mortem evidence of this was not conclusive. In the treatment of pancreatic cysts aspiration was deprecated. Drainage was the best treatment. Some of the cysts were best reached from behind. He described the method of operation.—Mr. COTTERILL had used the method in a case in the previous week.—Mr. BELL also spoke.

Dr. A. LOCKHART GILLESPIE gave statistics concerning the patients admitted into the Royal Infirmary suffering from Alcoholism and its Effects during the last five years. The statistics were founded on over 1000 cases. The tables showed an increased number of admissions after the trades holidays. It was found that outside workers were most numerous in summer, and inside workers in winter. The numbers of drivers, coachmen, &c. were greatest in the wettest months. Peripheral neuritis had occurred as often in men as in women. Delirium tremens and pneumonia were most common in July.

Reviews and Notices of Books.

The Malarial Fevers of Baltimore. By WILLIAM SYDNEY THAYER, M.D., and JOHN HEWETSON, M.D., Assistants in the Medical Clinic of the Johns Hopkins Hospital. Baltimore: The Johns Hopkins Press. 1895.

THIS work, of 215 pages, and illustrated with some excellent plates, is reprinted from the Johns Hopkins Hospital Reports, Vol. V., 1895, and is an analysis of 616 cases of malarial fever, with special reference to the relations existing between different types of hæmatozoa and different types of fever. The work is of an exhaustive character, and embodies the results of an extended series of clinical and bacteriological observations and researches. There were 616 cases of malarial fever treated in the wards and in the out-patient medical department of the hospital during the five years from 1889 to 1894. The examination of the blood in a considerable number of the cases occurring in the out-patient department, having commonly been too hasty or insufficient, has not been included in the authors' analysis, but in all the cases treated in the wards of the hospital the specific micro-organism was, we are told, discovered. As a result of their observations the authors believe that they "have been able to recognise certain distinct types of parasites which appear to be related in turn to certain almost equally characteristic types of fever." The principal object of their paper is, they tell us, to determine by a careful analysis of all the cases how far these impressions may be justified, and to compare these results with those of other observers. The work, moreover, contains an historical summary of the more important literature concerning the malarial parasite and a fairly complete list of the publications that have appeared since the parasitic origin of malarial fever has been recognised, as well as references to works and articles on the hæmatozoa of birds and other animals. It will be seen from the foregoing that the authors have not only produced a very exhaustive and useful treatise for all engaged in these bacteriological studies, but they have also done original work and undertaken a large amount of scientific observation in connexion with the varieties of hæmatozoa found in the malarial fevers of Baltimore. Almost all their examinations were made with fresh specimens of blood, which, when carefully and properly carried out, have always seemed to the authors to be simpler and more satisfactory than the different staining methods, although they have had recourse to these in many instances. The method of conducting their observations and the precautions which must be rigidly adhered to are fully described. We notice that the authors prefer in practice to take the blood for microscopical examination from the lobe of the ear for reasons stated by them. In connexion with the researches which have been carried on in the medical clinic of the Johns Hopkins Hospital at Baltimore we cannot do better than refer our readers to the excellent paper by Dr. G. Thin on "The Parasite of Malaria and Malarial Fevers," with its coloured illustration, and to our leading article on the same subject, in THE LANCET of last week.

Malarial fever, relatively rare in Baltimore, as elsewhere, during the winter months, is stated to reach a maximum of prevalence in September, the majority of all the cases occurring in August, September, and October. The relative susceptibility of the negro is said to be less than that of the white population by nearly two-thirds. The varieties of the malarial parasite distinguished and described by the authors are: the tertian parasite, the quartan, and the æstivo-autumnal parasite. Nothing in their experience has led them to believe that these varieties are interchangeable: they are distinct varieties, though closely allied to one another biologically. Combined infections with parasites of different varieties may occur, though rarely. The crescentic bodies, associated with the æstivo-autumnal parasite, develop from the small hyaline forms. Our authors have seen nothing to support the views of Mannaberg that they are the result of conjugation. They have never seen sporulating forms which they believe to have developed from crescents, and are not inclined to accept the view that these are degenerate forms, but rather that their true nature is still undetermined. The nature of the flagellate bodies which may develop in all types of malarial fever is not yet determined. As regards the action of quinine, which is undoubted, upon those three varieties of the parasite, they say that its influence is most strongly exerted when the parasite is undergoing the process of segmentation, before the entrance of the fresh segments into the red corpuscles. The drug is best administered just before the beginning of a paroxysm if we wish to obtain the greatest effect with a single dose.

It is almost needless to add that in our opinion the work

under review is a very valuable contribution to the interesting series of investigations that have been published concerning Laveran's parasite.

Dictionary of National Biography. Edited by SYDNEY LEE. Vol. XLI., Nichols—O'Dugan; Vol. XLII., O'Duinn—Owen. London: Smith, Elder, and Co. 1895.

FROM the general reader's point of view the most interesting articles in Vol. XLI. are probably those on two politicians of widely different careers, who were nevertheless to some extent contemporaries. Stafford Henry Northcote, the first Earl of Iddesleigh, was born in London in 1818, and succeeded to a baronetcy in 1851. He first entered Parliament in 1855, became Chancellor of the Exchequer in 1874 under Mr. Disraeli (after whose death he led the Conservative opposition), was created Earl of Iddesleigh in 1885, and died in 1887. Daniel O'Connell, the "Liberator," was born in county Kerry in 1775, and was called to the Irish Bar in 1798. In 1800 he publicly identified himself with the agitation for the repeal of the union with Great Britain, and from that time until his death at Genoa in 1847 he was the leading political champion of the Irish Nationalists. In the words of the biographer, "few other men have possessed his personal influence, and no other man has used such influence with greater moderation or self-abnegation."

The medical biographies are neither numerous nor important. Brinsley Nicholson, born in 1824 at Fort George, Scotland, was the eldest son of B. W. H. Nicholson of the Army Medical Staff. Having studied medicine in Edinburgh University, he graduated there as M.D. in 1845, became an army surgeon, and served in the Kaffir War in 1853 and 1854, the war with China in 1860, and the Maori War, which ended in 1864. About 1870 he retired from the army, and in 1875 he edited for the newly formed New Shakspere Society the first folio and the first quarto of "Henry the Fifth." In 1886 he brought out an excellent reprint of Reginald Scot's "Discoverie of Witchcraft" (1584). He died in 1892, and his edition of "The Best Plays of Ben Jonson" appeared in the following year. Whitlock Nicoll, born in 1788, studied medicine at St. George's Hospital and gained the diploma of the College of Surgeons of England in 1809. The degree of M.D. was subsequently conferred on him by three several authorities—Marischal College, Aberdeen, in 1816, the Archbishop of Canterbury in 1819, and Glasgow University in 1826. Besides contributions to medical periodicals he published five medical and five theological treatises. He was elected F.R.S. in 1830, and died in 1838. William Nisbet, M.D. and F.R.C.S. Edin., published volumes on various medical subjects between 1787 and 1808. William Norford, born in 1715, became an extra-licentiate of the College of Physicians in 1761, practised in Suffolk, and was the author of essays on the Treatment of Cancer and also of Fever. He died in 1793. Edward Norris, born in 1663, graduated as M.D. at Oxford in 1695; he was elected a Fellow of the Royal Society in 1698, and a Fellow of the Royal College of Physicians in 1716. In 1699 he accompanied his brother, Sir William Norris, as secretary of his embassy to the Mogul Emperor in India. He afterwards practised medicine in Cheshire and died in 1726. William Northcote, who was a naval surgeon from 1757 till about 1783, wrote on "The Marine Practice of Physic and Surgery" (2 vols., London, 1770), and also brought out smaller works on anatomy and pharmacy for the use of naval surgeons. John Northleigh, born in 1657, graduated as M.D. at Cambridge University and practised at Exeter. His principal writings were in defence of James II. He died in 1705, and was buried in Exeter Cathedral, where there is a monument of him. John Nott, born in 1751, studied surgery in Birmingham and London, travelled much on the Continent, made a voyage to China, became an extra-licentiate of the College of Physicians in London, and ultimately settled in practice near Bristol, where he died in 1825. His works, which were numerous, consisted chiefly of fiction, poetry, and metrical translations of Latin poets. His versions of the poems of Catullus, Propertius, and Johannes Secundus Nicolaius are reprinted in Bohn's Classical Library. Edward Nourse was born in 1701 at Oxford, where his father had practised from 1686. He was elected F.R.S. in 1728, and in 1731 was appointed assistant surgeon to St. Bartholomew's Hospital, ultimately becoming the senior surgeon. He was the first surgeon at that hospital who gave regular instruction in anatomy and surgery. He died in 1761. Christopher Nugent, a native of Ireland, graduated as M.D. in France and practised at Bath. In 1764 he removed to London and was one of the nine original members of the Literary Club. He was highly esteemed by Johnson, Edmund Burke, and other celebrities, and became a Fellow of the Royal Society. He died in 1775. None of these names of departed medical worthies are so familiar to the present generation as that of Thomas Nunneley of Leeds, who studied medicine at Guy's Hospital and took the diploma of the Royal College of Surgeons in 1832, becoming a Fellow in 1843. He settled in practice in Leeds, where for twenty years he filled the post of surgeon to the Eye and Ear Hospital, and lectured on anatomy, physiology, and surgery in the Leeds School of Medicine. The only well-known scientific man noticed in this volume is Dr. Noad, who was lecturer on chemistry at St. George's Hospital from 1845 till his death in 1877, and wrote several works on chemistry and electricity.

Among celebrities in other and lighter branches of literature allusion may be made to Mrs. Norton, the poetess, of whom there is a kindly memoir by Dr. Garnett of the British Museum. A great sensation was created in 1836 by this lady's vindication of her character in the Court which in those days dealt with marital questions. The biographer, however, does not mention that her unhappy story has been related by Mr. George Meredith in "Diana of the Cross-ways." At the end of the book there is an account of the adventurous life of Edmund O'Donovan, well known as a war correspondent of the *Daily News*, and especially distinguished by his journey to Merv in 1879.

In Vol. XLII. the most important memoir is that of Sir Richard Owen, the naturalist. He was born at Lancaster in 1804, studied medicine in Edinburgh University and St. Bartholomew's Hospital, became a Member of the Royal College of Surgeons in 1826, and in 1827 was appointed assistant conservator to the Hunterian Museum. In 1832 his "Memoir on the Pearly Nautilus" directed general attention to his abilities; in 1834 he was elected F.R.S., and in 1836 received the appointment of first Hunterian Professor of Comparative Anatomy and Physiology at the Royal College of Surgeons, his lectures on these subjects being continued regularly down to 1856, when he relinquished his professorship and became superintendent of the natural history departments of the British Museum. His original work was henceforth mainly confined to fossil osteology, but in 1861 he published two volumes of essays and observations by John Hunter, compiled from copies of Hunter's MSS., the originals of which were destroyed by Sir Everard Home. In 1866 and 1868 he published in three volumes his encyclopædic work on the "Anatomy and Physiology of the Vertebrates." He had not been long in office at the Museum when he began to urge the necessity for obtaining more suitable accommodation for the collection under his charge, a project fully realised in 1880 and 1881, when the specimens were transferred to the Natural History Museum at South Kensington. He retired from official life in the close of 1883, was immediately created K.C.B., and died in December, 1892. Next in the order of professional eminence comes James Adey Ogle, born in 1792 in London, where his father

was a successful general practitioner. Having studied medicine in Edinburgh and London he settled in Oxford, where he graduated as M.D. in 1820, and was appointed mathematical tutor of his college (Trinity) in the same year. He was elected F.R.C.P. in 1822, physician to the Radcliffe Infirmary in 1824, and F.R.S. in 1826. He delivered the Harveian Oration in 1844 and was appointed Regius Professor of Medicine at Oxford in 1851. He died in 1857, leaving no published works beyond a pamphlet on university education. Two accoucheurs of last century, well known, though not in the front rank, were Sir Fielding Ould in Dublin and Dr. William Osborne in London. The latter in 1783 published "An Essay on Laborious Parturition, in which the Division of the Symphysis Pubis is particularly considered." Osborne was opposed to this operation, and Dr. Norman Moore, the learned, careful, and suggestive author of many of the best medical biographies in previous volumes, adds that "it is now never performed." It has, however, lately been revived, and in 1893 THE LANCET had several lengthy articles on the subject, and recorded at least nineteen successful recent cases; of these operations thirteen were performed at the Clinique Baudelocque in Paris during 1892,[1] at least five in the United States,[2] and one at the London Hospital by Dr. A. H. N. Lewers.[3] Among the numerous memoirs contained in the volume there are several others of exceptional interest, both medical and general.

Horses, Asses, Zebras, Mules, and Mule Breeding. By W. B. TEGETMEIER, M.B.O.U., F.Z.S., and C. L. SUTHERLAND, F.Z.S. London: Horace Cox. 1895.

IN the preface to this book we are informed that upwards of four thousand works on horses and their utilisation have been published, of which number about one-half have been printed in Great Britain. But recently new animals—such as Prejevalski's horse and Grevy's zebra—have been discovered, species hitherto untamed have been pressed into the service of man, and new hybrids have been reared which hold out the promise of great usefulness, while a vast amount of information has been accumulated proving the advantages obtained from utilising the hybrid between the horse and ass known as the mule, in almost all civilised countries except England, in which country it is stated no book on this useful hybrid has ever been published. To supply this deficiency, besides furnishing some account of a number of solipeds, to demonstrate the great value and economy of the mule as a beast of draught and burden, that could be as advantageously employed in this country in agricultural and general draught purposes as it is by other nations, and by ourselves in all military operations abroad, was partly the object the authors had in view in publishing the little work recently issued.

About seventy pages are devoted to a description of horses, asses, and zebras, chiefly from a zoological standpoint, and the remainder of the book—a little more than seventy pages—deals with the utilisation of mules, so that it is not a work on the mule alone. It would be a mistake to assert that nothing has been written on the mule in this country, for an article is devoted to it in the "Encyclopædia Britannica," and two War Office publications deal with the subject in a very complete manner. Since the Crimean War, at any rate, the utility of the mule as a most useful animal in field operations has been fully recognised by our military authorities, and our little campaigns in remote and mountainous parts of the world have proved and justified this recognition. In the Crimean War we employed an immense number of mules, especially for transport and hospital purposes; and in Abyssinia, and more particularly in recent times in India, they have been invaluable as pack animals. Their endurance, sure-footedness, steadiness, and capability of doing hard work on meagre fare are well known to all who have had experience of them on active service, and these qualities render them preferable to horses for some purposes, though for others they are not at all fitted. In civil life in this country they are certainly little employed, though they have frequently been tried; there may be prejudice against them, but this would disappear eventually were they to be found as useful as horses in the everyday demands of town and country. There are objections to their employment for some kinds of work, and there would not be much economy in price between them and horses, as in those countries in which they are extensively in use they are more expensive than the latter. They are not nearly so well adapted for the saddle as horses, and for weight and strength the largest of them could not compete with the splendid Clydesdales and Shires that play such a large part in town traffic and agricultural labour. Then there is the peculiar asinine temper displaying itself now and again, no matter how gently some mules may be treated. But, as has been said, for hospital and general transport work in the field, and more particularly in hilly and rugged countries where forage may be scanty, no animal can compare with the hybrid between the male ass and the female horse.

The subject of the fertility of mules is touched upon in the book before us, and the instance of the female mule "Catherine," said to be still existing at the Jardin d'Acclimatation, Paris, which had offspring by a horse, is stated by one of the writers to be the only one of a *possibly* fertile mule that has ever come under his observation after a rather wide experience. Several instances, however, of female mules becoming pregnant are on record, and one of these cases is particularly interesting, as it was reported upon by a distinguished veterinarian, Professor Nanzio of the Naples Veterinary School, who published an account of it in 1873 under the title of "Altro Caso di Figliatiera di Una Mula, con l'Analisi del Suo Latte." This instance appears to have escaped the attention of recent writers on the subject.

The Management and Medical Treatment of Children in India. By EDWARD A. BIRCH, M.D. Brux., F.R.C.P. Lond., late Principal of the Medical College, Professor of Medicine, and Physician to the Medical College Hospital, Calcutta. Third edition. Calcutta: Thacker, Spink, and Co. 1895.

IT may suffice to say of this work that the present edition has been revised and enlarged, and that the author has successfully tried to convey a simple idea of the principles which should prevail in the rearing of children in India and in the treatment of their maladies in that country. The remarks on the management of the infant, nursing, principles of diet, dentition, artificial feeding and the diet of childhood, general hygiene, the nature and prevention of the more common diseases, on fever generally, and the examination of sick children, strike us as very good and judicious. We recognise that the circumstances under which families are so frequently placed in a country like India are a sufficient justification for the publication of a book of this nature. The information it contains cannot fail to be useful to parents and others possessed of ordinary intelligence and judgment under the conditions in which families are so often placed in situations abroad, where skilled professional aid is not always available, or until it can be made so. Mothers and nurses will be the better in any case for being acquainted with the principles of the topics we have indicated; and as regards children's diseases and their treatment the author has succeeded in producing a practical

[1] THE LANCET, Feb. 18th, 1893, p. 347.
[2] THE LANCET, Feb. 25th, 1893, p. 445.
[3] THE LANCET, Aug. 5th, 1893, p. 300.

and trustworthy guide, taking care, as he says, to err rather on the side of caution than otherwise.

LIBRARY TABLE.

The Great Eastern Railway Company's Tourist Guide to the Continent is a useful little book published at the low price of sixpence. It contains a clearly printed map of West Central Europe and the South of Scandinavia, with railway routes from Harwich *viâ* the Hook of Holland. Interesting information is given about Holland, Belgium, Germany, and Switzerland. The first three countries are eminently places in which to take a holiday; but Switzerland is spoiled, the hunting-ground of the cheap tripper, the Salvation Army, and the ingenious gentlemen who combine coöperative educational tours at so much per head with instructions by leading ministers and talk about reunion. Belgium, Holland, and the Ardennes are still unspotted, and the Harwich route is an easy and comfortable way to get there.

A Guide to the Income-tax Law and Practice, with Illustrative Cases of Returns, Accounts on Appeal, Repayment Claims, &c. By JOSEPH AFFLECK, Jun. Manchester: 72, Market-street.—This useful book, the work of an expert, appears at an opportune moment, when the gentlemen with the well-known buff papers are busily engaged depositing them at our doors. Commencing with a brief history of the income-tax, from its introduction to the present day, the author carefully and lucidly explains the many intricacies with which, as such, we are mostly only too familiar, and from which we usually turn in despair of the prospect of ever fathoming. The different schedules are ably treated, and Chapter XIII. will be found most useful to medical men, the author setting out *in extenso* a simple form of profit and loss account, showing how to correctly arrive at the proper amount to be returned for assessment. The chapter on partnerships, too, remarks on the large sums annually overpaid in income-tax through partners' neglect to take advantage of the provision for separate assessment to claim exemption or abatement. Not less valuable is the information as to the method to be adopted for claiming repayment of tax in those cases (and they are legion) where the profits have been over-assessed. Unfortunately, the price of the book is not stated; but it is well worth a few shillings to every man, and may save many pounds to not a few.

A Book of Detachable Diet Lists, for Albuminuria, Anæmia and Debility, Constipation, Diabetes, Diarrhœa, Dyspepsia, Fevers, Gout or Uric Acid Diathesis, Obesity, Tuberculosis, and a Sick-room Dietary. Compiled by JEROME B. THOMAS, A.B., M.D. Philadelphia: W. B. Saunders. 1895.—The author has drawn up appropriate diet lists for the use of patients suffering from the ten morbid conditions above mentioned, and has supplemented them by enumerations of the various solids and fluids which are to be specially avoided in each case. About a dozen copies of each of these ten lists are bound into a book, each leaf being perforated near the back, so that it can be torn out and left with the patient's nurse or friends. The idea is good, and the lists are copious, but they are in some respects more adapted to American than to English households. The sick-room dietary is also in leaflet form, and gives plain directions for peptonising several articles, and for making various beverages and soups.

The History of the Pennsylvania Hospital, 1751–1895. By THOMAS G. MORTON, M.D., Fellow of the College of Physicians, President of the Medical Staff and Senior Surgeon of the Pennsylvania Hospital, and President of the Philadelphia Academy of Surgery. Assisted by FRANK WOODBURY, M.D., Fellow of the College of Physicians, and Honorary Professor of Clinical Medicine in the Medico-Chirurgical College. Philadelphia: *Times* Printing House. 1895.—The province of Pennsylvania was occupied in the seventeenth century by Quaker settlers under energetic and conscientious leaders, and it soon became a prosperous community whose general tendency was highly favourable to well-considered works of philanthropy. The question of providing for the sick poor was seriously taken up in 1751 by Dr. Thomas Bond, who secured the coöperation of Benjamin Franklin and was the principal originator of a combined lunatic asylum and general infirmary, erected in the suburbs of Philadelphia in 1755 and 1756 and designated the Pennsylvania Hospital. The institution continued to fulfil this dual purpose until January, 1841, when all the insane were removed to a new building specially constructed for their accommodation some distance away in West Philadelphia. In the course of the next ten years the old hospital was extensively remodelled, and additions have been made at intervals up to the present day. The history of these various events is related by Dr. Morton and Dr. Woodbury in a graphic and entertaining narrative, which is in every way a model of what such a work should be. The book itself is a handsome volume of 570 pages, and contains 140 illustrations, many of which are full-page size.

New Inventions.

AN ASEPTIC SPONGE-HOLDER.

WHEN seeing my colleagues using the ordinary sponge-holders I have always been struck by the difficulty of cleaning them, and also the difficulty of removing either sponge or cotton-wool. In the sponge-holder I have had made all these difficulties are, I think, removed, and any number of sponges or swabs can be used in turn on one sponge-holder. A thread is attached to the sponge or swab, passed through the cup (A), pulled tight, and held in position by a turn round the little catch (B) shown near the handle. The sponge-holder can be used in throat, abdominal, or gynæcological work. It has been made for me in various sizes by Messrs. H. Hilliard and Son, 7, Nicolson-street, Edinburgh.

R. W. FELKIN, M.D.

A NEW SKIN-GRAFTING KNIFE.

THE accompanying plate is that of a new skin-grafting knife made for me by Messrs. Weiss and Son. It is 8 in. long in the blade, 2 in. wide, and the handle is 5 in. long. The advantages I claim for it are: 1. No force is necessary to cut the graft as the weight of the knife carries it quite easily through the skin. 2. A large graft can be cut as the blade is a long one. 3. The width of the blade allows of the graft being kept flat, with the right side up, and not curled on itself in any way. 4. The blade being flat, the edge or back of the knife can be approximated to any part of the wound, and the graft pulled directly on to the part where it is intended to place it without any fear of the graft rolling up or turning over, as so often happens with the knives used at present for this purpose. The knife has been in use now for some time, and I am much pleased with the way it works.

F. C. WALLIS, M.B., F.R.C.S.

THE LANCET.

LONDON: SATURDAY, JULY 13, 1895.

THE recent election to the Council of the Royal College of Surgeons of England presented some remarkable features which will always render it a memorable election. The number of vacant seats—viz., five—was unusually large, and two of the vacancies had been occasioned by death, and one of these two death vacancies by the death of the President. The number of the candidates—viz., nine—for the five vacant seats was not excessive, but the candidates were distinguished by the strength of their claims on the constituency, and the very even level of those claims, thus rendering selection difficult and almost invidious, and foreshadowing that close contest which actually occurred. Another distinctive feature of the election was the first operation of an amended by-law, under which voting papers were sent to every Fellow of the College whose address was known without being previously applied for, and were made returnable up to the latest possible time on the day of election. These altered conditions ensured the participation in the election of the largest number of Fellows who have hitherto voted at the College. The number of Fellows actually voting on the 4th inst. was 681; 621 by voting papers sent by post, and 60 by voting papers handed in personally. Two of the voting papers were invalid, one by reason of the voter having employed a dash instead of a cross to indicate the candidates for whom he wished to vote. Moreover, one or two voting papers arrived at the College after the election, and even on the following day, thus affording fresh evidence, if any were needed, of the small amount of attention which the busy practitioner is able to give to collegiate interests. The fact that the voting papers would this year be distributed to every Fellow whose address was known in the office of the College introduced into the contest a greater element of uncertainty because it seemed probable that Fellows would vote for the first time who had hitherto concerned themselves little, if at all, with College politics, as shown by their previous abstention from applying for voting papers. Such Fellows might be expected to be readily amenable to solicitations on the part of enterprising candidates and their friends. Curiously enough, this element of solicitation or personal canvassing was brought into play in a manner which, however successful, must be a source of regret to all who place a high value upon the maintenance of an elevated standard of professional conduct and the preservation of professional dignity. It is bad enough when Fellows or Members of the Royal College of Physicians write letters to Fellows of the Royal College of Surgeons of England soliciting votes for a candidate for the Council of the Royal College of Surgeons of England, but it is an outrage upon the honour and dignity of the profession when ladies of title indite letters to Fellows of the College to obtain votes for their professional friend or adviser. Are we returning to the manners of one hundred years ago? and are we going to assimilate the elections at the College to the old Parliamentary elections in the days when a duchess might descend from her chariot to bestow a kiss upon a butcher to secure his vote and interest? The reasonable limits of canvassing in an election to the Council of the College can be readily stated. It is perfectly legitimate for candidates themselves to issue addresses to the Fellows defining their views on current questions. This course was pursued in the election in 1889, when considerable excitement prevailed in regard to certain claims which had been advanced by Members of the College. The example was set by the late President of the College, Mr. HULKE, and the present President, Mr. HEATH, and was followed by Mr. HOWSE, Mr. RIVINGTON, and Mr. LAWSON TAIT. It is also perfectly legitimate for any body of Fellows interested either in the promotion of certain reforms at the College or in securing representation for any local centre to send out letters to the Fellows. All these processes have the merit of publicity and ensure the interchange of opinion, which is favourable to progress and the interests of the College. Personal canvassing, however, stands on a very much lower level than political canvassing, and though, perhaps, we cannot hope to arrive at a time when it will not be indulged in, we sincerely trust that it will in future be discouraged by the Fellows of the College generally.

Looking at the issue of the election, the return of Mr. WILLETT at the head of the poll, and followed by Mr. TREVES, Mr. BUTLIN, Mr. ALFRED COOPER, and Dr. WARD COUSINS, is a result by no means unsatisfactory to THE LANCET, four out of five of the successful candidates having been on the list of candidates recommended for the support of the Fellows. We were not prepared for that remarkable exhibition of canvassing which disturbed our forecast and interfered with a more triumphant issue for the friends of reform at the College. Had Mr. ALFRED COOPER been away, we have little doubt that Mr. WILLETT, Dr. WARD COUSINS, and Mr. NORTON would have been returned in company with Mr. BUTLIN and Mr. TREVES. As it was, the name of Mr. ALFRED COOPER frequently took the place either of that of Dr. WARD COUSINS or Mr. NORTON, with the result that Dr. WARD COUSINS came in as the fifth successful candidate and Mr. NORTON stood seventh on the poll, two votes only behind the first of the unsuccessful candidates, Mr. DAVIES-COLLEY. The return of Mr. TREVES and Mr. BUTLIN is not surprising, for they were evidently the strongest surgically, and Mr. BUTLIN possessed in common with Mr. WILLETT and Mr. COOPER that very great advantage at a College election of being an *alumnus* of St. Bartholomew's Hospital. The strength of the St. Bartholomew's connexion is shown in every collegiate contest. Whenever a member of the staff of St. Bartholomew's Hospital comes forward he is successful, and now that great institution is represented on the Council by five members of its staff and by Mr. ALFRED COOPER. To the strength of St. Bartholomew's Hospital the strength of Guy's Hospital is weakness, for, notwithstanding his personal and professional claims, all the

exertions of the Fellows connected with Guy's Hospital have been unable as yet quite to carry Mr. DAVIES-COLLEY into the Council.

There is one other point which strikes us in regard to the election, and that is that there were three candidates who had seats on the Court of Examiners and not one of these has been elected to the Council. This result is entirely congenial to our own predilections; for we believe that membership of the Court of Examiners, if not entirely antagonistic to progress, acts, at least, as a sedative and sometimes as a soporific. All the five successful candidates will be free from the Circean influence of the Court of Examiners and all have exhibited liberal tendencies. Mr. WILLETT and Dr. WARD COUSINS belong to the Association of Fellows, and Mr. BUTLIN has not long severed his connexion with that body. Mr. TREVES has spoken well at the Society of Fellows and in the conference of that society with the Association of Fellows. Mr. ALFRED COOPER was in former years, we believe, favourable to reform, and as he is entirely independent we have good hope of his proving himself a useful councillor.

THE Factories and Workshops Act passed through the House of Lords in one day. The Lords adopted its provisions precisely as they left the House of Commons, and gave a hurried assent to a measure which had been much discussed in the Commons, but which they themselves had no time to amend. If the Bill were to become law this course was inevitable; any change meant delay, which would have been fatal to it passing, and its adoption in its entirety was no doubt not only the best but the only practical way of dealing with the subject. It now only awaits the Royal assent.

The Bill in several respects required amendment, but on the whole it must be regarded with satisfaction, for it contains many useful provisions, to which we may briefly refer. Considering in the first instance the sanitary provisions, we note that for the first time in English law there is a statutory definition of overcrowding. The requirement which the new Act contains is that a factory or workshop is to be deemed overcrowded if every person within it is not provided with 250 cubic feet of air space, or with 400 cubic feet during any period of overtime, and beyond this the Secretary of State may by Order prescribe a requirement of greater air space under particular circumstances. Power is given to a court of summary jurisdiction, on the complaint of an inspector that the condition of a factory or workshop causes danger to health, to prohibit its continued use until the necessary works have been executed. Both these are good provisions; but the section relating to overcrowding will, we trust, not give the impression to employers that the permissible minimum of the law is under all circumstances adequate provision. A further very necessary section requires a sanitary authority to inform the factory inspector of the proceedings taken by them on any complaint made by him as to a factory or workshop. This is a requirement of which there has been much need, for the inspector has hitherto been left in doubt as to the result of his representations, and frequent inspection has been necessary to procure information which will now be more readily obtained. Mr. ASQUITH'S determination to make the Act effective has led to the incorporation of two sections which apply to work which is given out. If the employer receives notice from an inspector that the place where the work is done is dangerous or injurious to health he is prohibited under penalty from giving out work to be done in that place. He is also liable to penalty if he knowingly allows work to be done in a dwelling-house in which any person is suffering from small-pox or scarlet fever. These provisions are good so far as they go, but it is not obvious why some other maladies are not referred to. It is now many years since CHARLES KINGSLEY wrote the story of "Alton Locke," but we should have thought that the risks of typhus fever being spread by clothing would have been in the mind of the late Home Secretary.

One of the most important provisions in the Act is contained in the twenty-ninth section, which requires the notification by medical practitioners of cases of lead, phosphorus, or arsenical poisoning or of anthrax contracted in factories or workshops. This is the first requirement of notification of chronic maladies, and experience will be required as to how it will work. As a safeguard in this respect the notice is only to be sent when the case has not been previously notified, but obviously this is a point upon which the medical practitioner may have no knowledge. Mr. ASQUITH may, however, rely upon the willingness of the profession to coöperate with him in this useful demand. The one serious objection we see to the section is that the medical officer of health is not the recipient of the notice, but the Chief Inspector of Factories. Obviously the medical officer of health, if he does his duty in a district, must concern himself with the diseases of occupation, and we regret to see any statutory provision which might seem to imply that his duties did not include the prevention of these maladies.

We observe with satisfaction that factories and workshops are to be maintained at "a reasonable temperature." The need for such a demand has no doubt been found necessary in practice, and certainly compliance with it should be insisted on. The Committee of the House of Commons to which the Bill was referred experienced some difficulty in determining whether a specified temperature of 60° F. should be prescribed in the Act, or whether the general expression which is now contained in the section should be substituted for it. Probably the wiser choice has been made, especially as the difficulty of preventing excess of heat in summer renders a specified temperature almost impossible. As the section now stands it at any rate gives opportunity for the prosecution of flagrant offenders. Among other useful provisions may be noted the requirement that every occupier of a workshop shall give notice of the address of his workshop to the factory inspector, and shall further make annually a return showing the number of persons employed by him, with particulars as to their age and sex. There are also two further new provisions of considerable importance. The first of these makes laundries subject to the Factory Acts, some modification being made as to their

application. Exception is made with respect to laundries in certain public institutions and in institutions conducted for charitable purposes. The second is the prohibition of the occupation of underground bakehouses which are not in occupation at the time of the commencement of the Act. This is obviously a somewhat crude way of dealing with the subject, but we are not disposed to take exception to it. The effect will, no doubt, eventually be not only to ensure better conditions in new bakehouses, but also to enable sanitary authorities to judge by a higher standard any underground bakehouses previously existing in their districts.

Further restrictions are imposed upon the employment on overtime of young persons and especially of women. The limitation of the hours of labour can only be enforced by successive statutes as public opinion approves the adoption of such measures, but this opinion has already decided in favour of the prevention of the overworking of women. The Act is an important advance in factory legislation, and one of its beneficial effects will be to make preceding Acts more workable. Its tendency is, no doubt, towards centralisation of the duties of supervision, but this is inevitable if its provisions are to be enforced throughout the country with more energy than those of the Public Health Act are by some local authorities.

IT has been said recently that, apart from collision and deliberate destruction by an enemy, no well-found ship should ever be lost at sea. Strength of construction and engine power have minimised danger from wind and storm; position can be gauged to a yard or so by means of charts and Lord KELVIN'S ingenious compass and sounding apparatus; lightning stroke is, or ought to be, rendered perfectly innocuous by conductors; and fire can be combated by discipline. But collision is an evil which claims a yearly tale of victims—witness the *Elbe* disaster the other day—and one which it seems very hard to avert. The subject of defective vision in connexion with accidents both at sea and on land has recently been discussed at some length in our columns, and many correspondents have written showing how commonly guards, engine-drivers, signalmen, and seamen employed on look-out duty have been found to be wofully deficient in colour sense, or acuity of vision, or both. Now, we maintain that this country is specially interested in safe locomotion, either by land or by sea, for there is more railway mileage for its size than in any other country in the world, except possibly Belgium, and we own about half the ships afloat. Wherefore, seeing that a defective look-out man is a perpetual source of danger, not only to his own ship but also to the other which he may run into, it behoves the Government to ensure that all means are taken for securing, so far as may be, that all seamen, other than firemen perhaps, should have their vision tested by a medical officer. We are far from saying that the Board of Trade does not take trouble to have the tests for colour sense and acuteness of vision applied, but we have reason to believe that the tests in question are applied by the nautical examiners and not by medical men; and we think it not unlikely that the examiners themselves, if questioned on the subject, would allow their unfitness to adjudicate upon such delicate questions of scientific medicine as refraction and Daltonism. The East Indian Railway, as a correspondent who has every right to speak tells us, have made their "medical officers responsible for the sight and colour vision of every candidate for employment who can in any way have anything to do with the working of trains or signals." If this can be managed in India, there is no reason why the same rule should not be enforced here, in the matter both of railway and shipping companies. Testing for defects of vision ought to be in the hands of experts, and we think the Board of Trade would do well if it insisted upon this being the case.

On Feb. 1st, 1895, a deputation, which included almost all the most prominent ophthalmic surgeons in this country, laid before the then President of the Board of Trade various evidence to show the supreme importance of arranging for a proper system of tests to be applied by experts to employés working on railways and in ships. Mr. BRYCE'S reply was of the stereotyped official character. He could not but acknowledge the great weight and influence of the deputation, but he could assure them that the Board of Trade was fully alive to the importance of the matter, that it had only limited statutory powers, that candidates for the posts of master mariner and mate were tested, that they had no statutory powers with regard to railway officials, and so on. Now this sort of answer is not enough; the importance of the matter warrants our urging in the strongest manner that measures should be taken to assimilate British testing examinations, as far as thoroughness goes, to those which are held in India. If the new Ministers wish to lead off with a thoroughly necessary measure of reform—one, moreover, which touches the interests of every class without interfering with the privileges of any—let them consider and act upon our suggestions.

HE must be a very casual and superficial student of the history of the profession who has not noticed the conspicuous and important part that is played at the present time by societies which exist for the defence and protection of the profession, and especially of its individual members. No profession is more in need of such societies than our own. It has no recognised representation in Parliament as the other two great professions have. Its members in the very course and nature of their duties are exposed to misrepresentation and attack as the other professions are not. Neither is there any body within the profession, constituted by law, for protecting and guarding the reputation and the interests of its members. There are, indeed, medical bodies, so-called medical authorities, as specified and set forth in the Medical Acts, which pose as the *alma mater* of their respective members; but these act rather as a stepmother than a real one, and display little interest in their children after the latter have once paid for their degrees or diplomas. Even the General Medical Council, which has some powers of punishment, has no power of protection and is slow to exercise its powers of discipline over those practitioners who by disgraceful professional conduct

injure the profession and bring discredit on its members. Such members would remain unnamed and unpunished were it not for the action of such societies as the Medical Defence Union (Limited) and the London and Counties Medical Protection Society (Limited). When it is considered that these societies are purely voluntary associations, having no legal status, and that they have only existed for a few years, it is cause for wonder that they have done so much for the profession. It is not easy to see how the General Medical Council would be able to fulfil its functions without them or some such association.

It may be argued that the General Medical Council should be armed with the power and with the duty of taking the initiative in bringing to judgment those who violate the traditions and the unwritten and written laws of the profession. This is a question that merits attention at the hands of those who seek to promote amendments of the Medical Acts. Be this as it may, we are for the present dependent on the two societies which we have mentioned for watchfulness in the detection of defects or faults in medical conduct and for any attempt to bring them under the notice of the individual medical authorities or of the General Medical Council. The efficiency of these societies cannot, therefore, but be a matter of enormous interest to the profession. It is recognised that they have attained to a high degree of efficiency. We see them fail occasionally in their endeavours to induce the medical authorities or the General Medical Council to remove from the Register those who, according to them, have forfeited their right to a place there. But this is no proof that they have not acted rightly in submitting such cases to the judgment of the Council. Their powers of investigating facts are limited as are their means of doing so. When this limitation is considered the wonder is that they have done so much as they have. They have made themselves felt as a terror to evil-doers, and they have given a new sense of security to every honest and honourable practitioner within their membership. It is difficult to say which of these associations has deserved best of the profession or has the claim to be preferred. Each is represented by a president, who stands on a professional eminence which commands universal respect and who has little personally to gain by his office. There is, in fact, no other criticism to make concerning these associations save that at present there are two of them, we will not say acting in rivalry, and most certainly not acting in opposition to each other, but by their duality weakening the defensive power of the profession which, united, would be irresistible.

It is not easy for outsiders to understand all the influences which have led to this division. Some time since it seemed possible to hope that it was to be healed; but the hope was not then realised. An honest and earnest and we trust successful attempt has just been made to bring about this most desirable consummation, and the proceedings at the meeting will be found reported in another column. It is intelligible that there are difficulties still in the way which need frank expression. There should be no raw haste: let them be fairly considered. But we would impress on the executive of both associations that unity is strength, and that there never was a time when the interests and the very reputation of the profession made it more necessary for unity and strength to exist in its counsels. It seems sanguine to expect the British Medical Association to undertake such work as that done by the Medical Defence Union and the London and Counties Medical Protection Society. It is otherwise employed, and, intentionally or not, it has allowed this function to pass into other hands. The function is a grave and lofty one, and calls for the help of members of the profession of experience, of judgment, and of honour, with a disposition to keep practitioners with a little tendency to err, in right lines rather than to accuse them. Out of these two associations it should be possible to construct an executive which would answer to all these qualities, and we have no doubt that the amalgamation will soon be *un fait accompli*. The two societies will gain the gratitude of the profession by earnestly studying the conditions of a just and sound amalgamation which will provide each practitioner with a refuge from unmerited malice and detraction and a protection against unjust and unprofessional competition. We feel very keenly that enormous benefit will be secured by amalgamation, and, as will be seen from a letter which was read to the meeting on Wednesday, and which is published in another column, we have endeavoured to lend a helping hand towards such a desirable result.

Annotations.

"Ne quid nimis."

EXPERIMENTS ON LIVING ANIMALS.

IN the return made to the House of Commons "showing the number of experiments performed on living animals during the year 1894, under licences granted under the Act 39 and 40 Vict., c. 77," some most interesting and instructive features are brought out. It is evident that the greatest care is taken (*a*) as to the qualifications of the holders of the licences, (*b*) as to the places for which licences are granted for the carrying on of experiments, and (*c*) as to the complete organisation of the system, and inspection of these licensed premises. Dr. Poore's return gives the following information. The total number of licensees during the year 1894 was 185, of whom 56 performed no experiments, and 129 performed 3104 experiments. Of these experiments 1054 were physiological, 1602 pathological, and 448 therapeutical. These figures suggest a somewhat too artificial division which, however, is not borne out on reference to the details of the elaborate tables given, as many of the experiments classified as physiological and pathological should really come under the heading of therapeutical, though they should come there only through the direct bearing they have on therapeutics. It is of importance to bear this point in mind in dealing with these statistics. Under the licence alone 942 experiments, and under Certificate C. 123 experiments were performed; and in these cases the animals can suffer no pain or discomfort even, as complete anæsthesia is maintained from before the commencement of the experiment until the animal is killed. Under certificates A, A and E, and A and F 1549 hypodermic injection or inoculation experiments which involve no more pain than is given by the prick of a needle were made. Under certificates B and B and E E 495 experiments were performed, and, as the inspector points out, these animals were all anæsthetised during the performance of the operation, but were then allowed to

recover. "These operations," he says, "in order to ensure success, are necessarily done with as much care as are similar operations upon the human subject, and the wounds being dressed antiseptically no pain results during the healing process." That careful supervision is exercised and that the law is carried out most strictly is abundantly evident from the report. A full list of the "licensed places" is given. "All licenses were restricted to the licensed place or places specified on their licenses, with the exception of these who were permitted to perform inoculation experiments in places other than a 'licensed place,' with the object of studying outbreaks of disease amongst animals in remote districts." It is certainly evident, then, from a study of the report that all experimental work has been conducted in suitable places; that licenses and certificates have been granted and allowed only upon the recommendation of persons of high scientific standing; and that the licensees are persons who, by their training and education, are fitted to undertake experimental work and to profit by it. Dr. Poore and Sir James Russell have reported on all these points, and the result is a most interesting document—especially interesting from the point of view of those who, whilst approving of facilities being granted for the carrying out of necessary experiments on living animals, are anxious to be satisfied that these experiments are carried on under careful independent supervision. From Ireland Sir Thornley Stoker has much the same to report, except that here the number of experiments made was exceedingly small. Only nine experiments were performed, and these were all of a painless nature, "and were directed to useful ends. Eight of them were investigations of the effects of bacterial poisons, and one an examination of the secreting power of the kidney."

APPOINTMENT OF POLICE SURGEONS: A NEW DEPARTURE.

IT will be remembered that early in the year a deputation from the United Kingdom Police Surgeons' Association waited upon Mr. Asquith with suggestions on four points. Two of these were the desirability of appointing special police surgeons in those districts which at present have none, and the importance of issuing to all provincial police surgeons the instructions furnished for some time past to the metropolitan police surgeons as to the examination of prisoners charged with criminal assaults on females. It is gratifying to see that the efforts of the deputation have borne fruit. From the *Surrey Advertiser* we learn that a committee of the Surrey county council recently had before them a circular letter of the Secretary of State pointing out the advantages to be derived from the appointment of recognised police surgeons to examine prisoners arrested on certain charges; and the committee were of opinion that it was desirable such appointments should be made. They had therefore selected certain medical practitioners residing in the various districts of the county to act as police surgeons in the cases referred to at a reasonable fee, not exceeding one guinea for each case. We certainly hope it will not be less. In Taylor's Medical Jurisprudence it is laid down that "in all these cases there should be good medical evidence and a corroboration from circumstances." We trust that the gentlemen appointed to perform these important duties will be experienced practitioners duly impressed with the very serious nature of their duties and fully competent to perform them. While, on the one hand, it is imperative that no man should be convicted of so serious a charge unless it be fully brought home to him, it is no less imperative that when the charge is fully proved by medical and other evidence a conviction should follow. That some females are ready to prefer false charges against innocent men is too true, but it is no less true that there is a vile class of male offenders for whom a long term of imprisonment is the only proper punishment. Skilled medical evidence is required in all these cases, as well for the innocent as for the guilty.

THE RECENT PROSECUTION OF AN UNQUALIFIED ASSISTANT.

AT Southwark Police Court, before Mr. Kennedy, Mr. Francis Morny Coppin was prosecuted by Mr. Braxton Hicks for giving false certificates. There were six summonses in all. Mr. Braxton Hicks began by drawing attention to the fact that Mr. Coppin was an unqualified man and that his employer had been already dealt with by the General Medical Council. He added that on certain technical grounds five out of the six summonses would be withdrawn. He would now proceed to the first case, that of Harriet Bates. This certificate stated: "I last saw her alive on Feb. 17th, 1895, and she died on Feb. 18th, 1895," and the certificate was dated Feb. 19th, and signed G. F. McCarthy. Now the last day that Mr. McCarthy saw the patient was the 13th, and on the 19th he was at Brighton. Mr. Coppin, when the representatives of the child came for the certificate, filled it up, signing Mr. McCarthy's name. He (Mr. Coppin) would plead guilty in this case. Mr. Braxton Hicks went on to point out how, if an unqualified man was at liberty to represent or to use the name of a qualified man, much crime might be hidden. Mr. Braxton Hicks having mentioned the facts, said he wished to withdraw all the summonses except the first, in the case of Bates, and Mr. Coppin was fined £10 and 2s. costs. Mr. Braxton Hicks deserves the warmest thanks of every right-thinking person for his conduct of this case. Actions like that of Mr. McCarthy and Mr. Coppin are fraught with danger. The power to give a death certificate is one which ought to be guarded in the most jealous manner, and any methods which go to show that this power is abused are most reprehensible. Mr. McCarthy has been dealt with by the General Medical Council, but we would wish him to bear in mind the legal maxim, "Qui facit per alium facit per se."

A PROSECUTION UNDER THE INFECTIOUS DISEASES NOTIFICATION ACT.

AT the Edmonton bench, on July 4th, Dr. Benjafield, the medical officer to the Strand Union Schools, was fined 10s. and costs for not "forthwith" notifying a case of infectious disease in one of the school children. The London and Counties' Medical Protection Society, represented by Mr. Stone, defended Dr. Benjafield. It appears that a case of scarlet fever was diagnosed on June 8th, and the case was ordered to be removed. But the 9th being a Sunday, the information was not received by the Metropolitan Asylums Board in time to send their ambulance until the 10th. The medical officer of health of Edmonton saw the ambulance and followed it to the school on the 10th, and it was only then that the superintendent of the school wrote out a form of notification; but the medical officer's certificate, even if posted on the 13th, was not received till the 14th. A delay between the 8th and 13th cannot be regarded as compliance with the terms of the Act; the more so as no defence as to uncertainty of diagnosis in this case was maintained. If the Act is to be useful, the notification should, apart from reasonable cause being shown to the contrary, be despatched on the day when, or at latest the day after, the medical practitioner becomes aware of the existence of the infectious disease. We do not know how far the difficulty which arose in this case has been due to any objection to notify, lest there should be interference on the part of a medical officer of health in an institution which

is under the medical charge of a special officer. This has arisen in workhouses and other places. But these establishments come within the provisions of the Act as to notification, and no attempts should be made to avoid compliance with its terms. The ordinary courtesies of the medical profession should suffice to avoid needless action and interference of health officers in cases where a special medical officer is responsible for the administration of a public institution. Mr. Stone contended that when every precaution had been taken to prevent the spread of the disease, and the authorities had been made duly cognisant of its occurrence, the whole spirit of the Act had been complied with. The bench, however, were of opinion that the letter of the law had not been complied with and inflicted the small penalty on Dr. Benjafield. Although not wholly successful in their ministrations (and, as will be seen from what we have already said, we do not think it possible for the magistrates to have come to any other decision), we consider that the society were actuated by quite the right sort of motive in taking up the case. Any prosecutions under this most useful but most ticklish Act which have the appearance of being vexatious are greatly to be deplored as being calculated to interfere with the proper working of the regulations.

MUSEUM OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

ON the 4th inst. and on the following day an exhibition was held in the council room at the Royal College of Surgeons of England of all the specimens added to the museum during the past year. The additions have been very numerous, and include many of great interest. Among the pathological specimens may be mentioned the following. A case of sarcoma of the patella, which was shown at the Pathological Society by Mr. D'Arcy Power. A case of sarcoma arising in the subscapularis muscle and invading the chest wall; an attempt was made to remove the growth, but the patient died. Two specimens showing trophic changes in the lower limb in locomotor ataxy. A roll of human hair weighing five pounds, removed successfully from the stomach of a woman who had been in the habit of biting and swallowing her hair; there were no signs of insanity in the patient. A vermiform appendix about nine inches in length. A secondary carcinoma growing from the transverse portion of the arch of the aorta of a dog, causing pressure on the trachea with dyspnœa. A recurrent carcinoma of the breast in a man who had had a similar growth removed from the same situation ten years previously. Several specimens of old injuries to the beaks of birds, resulting in much deformity from the unequal growth of the beaks. In the teratological series two specimens were worth noting. One was a fœtus with an additional arm and leg on the left side, and also an additional left kidney. The other was a field vole (Arvicola agrestis) with absence of the hind limbs and the posterior region of the body. Several specimens illustrating diseases of the liver and gall-bladder which accompanied the Jacksonian Prize Essay for 1894. A humerus removed from an Egyptian tomb of a date about 4000 B.C. showed an old injury to the head of the bone, resulting in much deformity. Several excellent dissections have been added to the department of normal human anatomy; they chiefly refer to the muscles and ligaments of the foot. There are some admirable dissections of the nervous system of animals; and many dissections to show endo-skeletal structures, and among them may be mentioned the cartilaginous skeleton of the lamprey (Petromyzon fluviatilis) and of Raia maculata. Two hundred and five skulls were purchased from the Anthropological Society, and among them were the skulls of many races not previously represented in the collection. Several examples were shown of the assumption of male plumage by old female birds; the specimens include golden pheasants and Japanese pheasants. No satisfactory explanation of this change has been given.

INQUESTS WITHOUT MEDICAL EVIDENCE.

A REMARKABLE and flagrant instance of a policeman being permitted to give medical evidence at an inquest is published in the *Somerset County Gazette* of June 22nd. The body of a woman having been found in the Bridgwater Canal near Fordgate, Somersetshire, the police sergeant at North Petherton is reported to have stated, among other evidence: "The body was very rigid, the hands were clenched, and there was a frothy mucus round the mouth and nostril, which are indications of death from drowning. I had the body conveyed to her residence, where I had all the clothes removed and made an external examination of the body. I found no bruises or signs of violence whatever." Comment on this case is superfluous. There is at least one medical man in the district, and the circumstances, if correctly reported, appear even more indefensible than any of the inquests without medical evidence recently recorded in THE LANCET.

SWEET ARE THE USES OF ADVERTISEMENT.

WE have received a pamphlet containing a "list of names of some of the medical men who have sent testimonials (unsolicited) in favour of ——'s extract." Thackeray once wrote a paper of suggestions to a young novelist for bringing in the names of various firms, which firms would then supply the writer with assorted articles mentioned; but we do not think it becoming to see medical men's names and addresses prominent in a commercial advertisement, although in many cases we can hardly credit the letters being written by educated men. The varying styles of testimonials would form a valuable nucleus for a "complete commercial letter-writer." Here, for instance, is the simple straightforward, business-like style:—

25th September, 1885.

Mr. —— begs to enclose P.O.O. (£1 3s. 6d.). It is a most valuable restorative. Send two gallons directed as before.

——, M.R.C.S.

Two gallons of Post Office Orders would be a valuable restorative to many persons! Next comes the Joseph Surface or extreme courtesy style:—

15th May, 1884.

Gentlemen,—I am enabled to speak commendably of your "Extract ——," which you so kindly sent me. I have found it a most agreeable stomachic, and for pleasantness to the palate is certainly most inviting. My recommendation to many has, I hope, been productive of gain to you, as well as a very pleasing duty on my part.

Ever your obliged and grateful servant,

——, L.R.C.S.

In contrast to this is the involved third-person style:—

March 13th, 1885.

Doctor —— will feel obliged by Messrs. —— sending one dozen pints of their "——" to —— railway station. Dr. —— has used a small portion of the Extract in cases of diarrhœa with extreme debility, and with marked success. Dr. —— feels satisfied that when its efficacy in various affections becomes more generally known in this locality that it will be largely availed of, seeing that it combines the many excellent qualities of therapeutic and diatetic (*sic*) with rapidity and cheapness. Amount will be forwarded on receipt.

"Diarrhœa with extreme debility, and with marked success," is, we suppose, a synonym for cholera. And what are "the qualities of therapeutic and diatetic"? Lastly, we have the pathetic:—

Sunday, 12th October, 1884.

Gentlemen,—I have tried your sample bottle of "——" with a very urgent and chronic case of asthma and heart disease in a gentleman sixty-seven years of age. I am now with my patient, and he has found comfort and support from the —— when champagne, brandy and milk, and turtle soup fail. Send me a pint through post as quick as possible, or a little more of it will come through post.

Case extremely urgent. Will fear no delay. I materially doubt the issue of this illness, being ten years suffering, but wish to try your remedy. I will send you cheque or P.O.O. immediately I hear from you

I am, Gentlemen, yours faithfully,

—— M.D., L.R.C.P.

This appeal would melt the heart of a stone. Picture the anxious physician sitting at the bedside. Champagne,

brandy and milk, and turtle soup have all failed. But Messrs. ——'s extract, the veritable ambrosia, arrives, and all is well. Seriously, though, is it fitting that this sort of puffery should go on unchecked? The compound in question, we daresay, is nutritious enough, but the pamphlet seems to advertise the testimonial-writer as much as the preparation.

THE WORTHING WATER-SUPPLY.

IT is now some time since the yield from the well which has been sunk at great cost by the Worthing corporation on the South Downs equalled the million gallons per day which were required by the Local Government Board before application for pecuniary help would be sanctioned. This week the undertaking of the West Worthing Waterworks and Baths Company has been handed over to the council, which is now, therefore, in possession of the water supply of the whole borough. By a majority of one the council has decided to adopt the system of private loans as against corporation stock to cover the expenses of a trying term.

PROPOSED MEMORIAL TO PROFESSOR HUXLEY.

IT has been decided to establish in connexion with the Charing-cross Hospital Medical School a permanent memorial to one of its most distinguished students, the late Professor Huxley. To this end the following committee has been formed: Sir Joseph Fayrer, K.C.S.I., F.R.S.; Sir Guyer Hunter, K.C.M.G. (both old friends and fellow students of Professor Huxley at the Charing-cross School); Dr. Watt Black (honorary treasurer), Mr. J. H. Morgan, Mr. Stanley Boyd, Dr. Montague Murray, and Mr. H. F. Waterhouse (honorary secretary). It is proposed that the memorial shall take the form of an annual lecture and a science scholarship and medal; but the final decision will depend upon the wishes of a general meeting of the subscribers. A meeting will be held at Charing-cross Medical School on Tuesday, July 16th, at 3 P.M., Sir Joseph Fayrer in the chair, to further the establishment of the memorial. It is hoped that all former students of the school and others interested in the memorial will attend. Subscriptions will be received and acknowledged by Dr. Watt Black at the Charing-cross Hospital Medical School.

SUMMER SCHOOL OF MEDICINE AT CAMBRIDGE.

THE "Summer School of Medicine for qualified practitioners" held in Cambridge during last week was a signal success. Eighty members were present from all parts of the country, this being about as many as could conveniently and without crowding be accommodated at the demonstrations in the laboratories and in the hospital. They were provided with rooms, dinners, and breakfasts in King's and Downing Colleges; and they were most enthusiastic in their praises and thanks for all that was done for them. They, with one accord, said that they had never passed so agreeable and instructive a week. Each day was fully occupied, and they were most diligent in availing themselves of the opportunities offered. The only complaint made was that they would gladly have paid more than the sum charged, which was barely sufficient to cover the expenses of board and lodging in the Colleges. The meeting was opened on Monday evening by an address from Sir George Humphry, which was published in the last issue of THE LANCET. Lectures were given by Professors Allbutt, Foster, Humphry, and MacAlister, Dr. Anningson, and Mr. Douty; demonstrations in the laboratories (physiological) by Dr. Shore and others, (pathological) by Dr. Kanthack and Dr. Lazarus-Barlow, and (therapeutical) by Mr. Marshall; also demonstrations of patients at the hospital by Professor Bradbury, Dr. Laurence Humphry, Mr. Wherry, Mr. Deighton, and Dr. Griffiths. A remarkable exhibition of beautiful drawings of ophthalmoscopic views of the retinæ of various animals, including the lion, tiger, rhinoceros, &c., taken by Dr. G. Lindsay Johnson, who has long been working at this subject and is preparing a book on it with illustrations, and shown by him, was very attractive. The whole programme was carried out in such a manner as to be decidedly encouraging to a repetition of the same in any future year in which the several professors and others concerned may be willing to undertake the trouble of offering a similar boon to the medical men of the country. At the conclusion of a smoking-concert on Friday evening a pair of handsome silver candlesticks was presented to Dr. Griffiths by the visitors as a wedding-gift and as a token of their appreciation of, and obligation for, the pains he had taken to ensure their comfort and to organise and promote the success of the meeting.

A SERIES OF COMPLAINTS.

AT the last meeting of the Petersfield (Hants) board of guardians the Local Government Board Inspector (Mr. Baldwyn Fleming) made a series of remarkable complaints. At the dead-house that morning he had discovered a woman in her coffin with the shroud unfastened. In the infirmary he had seen a paralytic patient who had "been allowed to lie in bed under such conditions as to almost cause bedsores." There were two people in the house who had been married forty years. The man was paralysed and bedridden; the woman eighty-two years of age, blind and unable to walk. They had only met four times in the last six months; the inspector thought they should be together at least once a week. Mr. Fleming objected to the lying-in ward as inconvenient in every way and altogether inadequate. Lastly, he objected to the proposed amalgamation of two relief districts in view of the recent recommendations of the Aged Poor Commission. If the board pressed the latter they must take the responsibility. He told them plainly he did not like it and could not agree with their views. A certain amount of suspicion is apt to be raised by five grave grumbles in one day. There may have been carelessness in the first two cases; the inspector may have been correctly informed by the aged couple whose cause he espoused; the lying-in ward may be useless as such; and the proposal of the board may be unwise. It is certainly a case, however, in which the other version ought to be heard before judgment is pronounced. The inspector's report is very sweeping in its ubiquitous fault-finding.

THE SELECT COMMITTEE ON FOOD PRODUCTS ADULTERATION.

IT is now fifteen months since a Select Committee was appointed to inquire into the working of the Margarine Act, 1887, and the Sale of Food and Drugs Act, 1875, to report whether any, and if so what, amendments of the law relating to adulteration were in their opinion desirable. On the close of the Parliamentary session on Aug. 1st last the committee reported that it was not in their power to conclude their inquiry, and the evidence taken up to that time was published in a Blue-book which was dealt with in THE LANCET of Oct. 20th. It embodied the evidence of witnesses who consisted chiefly of, firstly, Government officials and then wholesale dealers. Comparatively bulky as this Blue-book was, we ventured to think it could not contain but a tithe of the complete hearing. Since then a number of witnesses have been examined who are likely to afford valuable evidence from the public analyst's point of view. Not the least interesting aspect to ourselves of this important section of the inquiry will be the opinions expressed by these gentlemen on the question of standards, of samples for

reference, and of the manner of the purchase of samples. With these points we propose to deal on a future occasion as soon as the minutes of evidence are published. The labours of the committee are by no means finished, and, as we predicted, the inquiry has become more arduous and more prolonged than was probably anticipated. On the 2nd inst. the Committee met to receive the draught report of the chairman, which was to the effect that further evidence upon the matters referred to them had been taken, but that they have not had sufficient time to conclude their investigations. This is practically the same conclusion as was reported at the end of the previous session. They therefore agreed to report to the House the evidence already taken and to recommend that a committee on the same subject should be appointed in the next Parliament. The coming general election may therefore have an important bearing on the constitution of the new committee next session, since a change of administration will of course lead to the appointment of many new members.

SELF-POISONING BY CHLOROFORM.

FEW practices are at once more pernicious and more common than auto-intoxication by means of chloroform. Within a few days two persons have done themselves to death by inhaling chloroform. Mr. F. C. Banks, as a result of a poisoned wound inflicted by pricking his finger with a toothpick, suffered great pain. It appears from the evidence of his wife that he inhaled chloroform to obtain relief. It is almost incredible that this man had for eighteen months received regularly daily at his house two ounces of chloroform for auto-intoxication. He poured a small quantity upon a paper cone and inhaled it. The wife awakened to find the unfortunate man comatose and stertorous, and from this state he never recovered. It seems to us perfectly monstrous that the victim should ever have had the chloroform supplied to him. The laity know so little of the perils of inhaling anæsthetics that they ought at least to be protected from themselves and others equally incompetent to administer the drug. In the second case, a young surgeon, Mr. T. G. Sloan of West Calder, suffering from neuralgia and sciatica, inhaled chloroform to secure sleep and forgetfulness of his pains. While comatose he appears to have fallen forward and so inhaled a lethal dose and died. Thus two lives are sacrificed to a reckless use of one of the most beneficent drugs given to man to assuage those ills to which flesh is heir.

PLATO AND THE PHYSICIANS.

IN a curious passage in one of the most famous of his dialogues—the Phædrus—Plato sketches his view of the doctrine of the transmigration of souls. The soul which has seen most of truth in its former state comes to the birth as a philosopher, or artist, or musician, or lover; that which has seen truth in the second degree shall be a righteous king, or warrior, or lord; the soul which is of the third class shall be a politician, or economist, or trader; the fourth shall be a lover of gymnastic toils or a physician; the fifth a prophet or hierophant; to the sixth a poet or imitator will be appropriate; to the seventh the life of an artisan or husbandman; to the eighth that of a sophist or demagogue; to the ninth that of a tyrant. "All these," says the philosopher, "are states of probation in which he who lives righteously improves, and he who lives unrighteously deteriorates his lot." The order of precedence in the above list is very curious and highly characteristic of the Hellenic mind. The philosopher at the top of the scale and the tyrant at the bottom show that even Plato was not free from the prejudices of his nation and his caste. The place he assigns to the physician—viz., fourth in the scale—is not a very elevated one, and it is somewhat singular to find him bracketed with the lover of gymnastic toils. It is something, however, to find that the "prophet or hierophant"—the ancient representative of an important profession—is placed even lower—viz., fifth. Plato's comparatively low esteem for the profession of medicine is not difficult to understand, since at a time when anatomy consisted of a few crude facts and physiology did not exist, it was impossible that medicine could command the reverence of any profound and penetrating intellect. We find Plato constantly in his dialogues alluding to medicine as if it consisted of little else but giving a purge or an emetic. No doubt Hippocrates was a man of profound genius and of immense knowledge, considering his time, but it is very unlikely that the average practitioner rose above the level of the mere drug-giving empiric. Lovers of Plato, who, we trust, are not few in the profession, may read their favourite author without feeling aggrieved that in his appreciation of medicine he did not rise above the level of his time. It is probable that the average practitioner of those days combined much presumption and not a little chicanery with a "plentiful lack" of real medical knowledge, and it can hardly be a matter of wonder that the philosopher looked askance upon such pretenders.

THE RESTORATION OF ST. MARY OVERIE.

WE have received an appeal from the restoration committee of the ancient Church of St. Mary Overie, better known as St. Saviour's, Southwark. This church, so well known and studied by travellers on the South-Eastern Railway owing to the kindness and thoughtfulness of the S.E.R. Company in not infrequently stopping their trains between London Bridge and Cannon-street just opposite to it, is, after Westminster Abbey, the finest example of mediæval architecture remaining in London. It was anciently served by the Augustinian canons regular, a religious order to which medical men owe much, for in their hands, too, was the great Hospital of St. Bartholomew. £8000 are urgently required, and we earnestly hope that the complete restoration of a building so interesting historically, and which after its long slumber may again be a centre of good works, may not be delayed for want of money. Subscriptions may be sent to the Bishop of Rochester, the Bishop of Southwark, to the treasurers, Sir Frederick Wigan and Mr. Robert Barclay, or to the Rector of St. Saviour's, Southwark, S.E., or to Mr. James F. Field, lay honorary secretary, 54, Borough High-street, S.E.

"THE EVICTION OF MR. T. M. WATT."

IN our issue of June 22nd last we commented, under this heading, severely upon the action of Sir William Worsley of Hovingham towards his tenant, Mr. T. M. Watt, basing our strictures upon a statement laid before us by Mr. Watt and upon an uncontradicted report of the circumstances of the eviction which appeared in a lay contemporary of more than local importance—the *Leeds Mercury*. Owing to communications we have since received from Sir William Worsley's solicitors and from residents in the neighbourhood of Hovingham, we see reasons to modify the opinions then expressed; while we feel that, whatever our sentiments in the matter might have been—altered or unaltered—it would have been our duty, and in accordance with the impartiality with which we have ever striven to discuss disputes between medical and lay citizens, to give to our readers Sir William Worsley's side of the matter, having expressed ourselves upon Mr. Watt's version. First, then, Mr. Watt's statement (which he supplied to us in pamphlet form) that it was his attempt to secure a better sanitary environment for the people of the neighbourhood which had placed him in opposition to the great man of the place is absolutely traversed

by Messrs. Hugh W. & R. Pearson, Sir William Worsley's solicitors. They find it to have "no foundation in fact" and to be "absolutely ridiculous." Secondly, the suggestion that Mr. Watt has been driven from Hovingham under circumstances "from which no single element of hardship would seem to be absent"—an opinion of ours based upon Mr. Watt's words to us that his landlord had so far as in him lay confiscated the practice, and so deprived Mr. Watt of his livelihood, without entertaining the question of arbitration concerning compensation—is flatly contradicted by Messrs. Pearson, who write that Sir William Worsley "has repeatedly, beginning in 1886 (long before the Local Government Act and the elections under it to which Mr. Watt and the *Leeds Mercury* ascribe the notice to quit), offered to purchase Mr. Watt's practice on the usual terms, and ..... these offers were renewed down to the time that ejectment proceedings had to be taken." Thirdly (and this is a matter of far less moment) it would appear that our interpretation of the views of the neighbourhood cannot be maintained. The large number of names appended to a petition asking Sir William Worsley to reconsider his decision led us to the inference that the majority of Mr. Watt's fellow residents were in sympathy with him. But we have since received communications from sources beyond reproach that Mr. Watt did certainly bring upon himself his own misfortunes, and that he did this in such a manner that even those who sympathise strongly with him—in which category more than one of our correspondents may be classed—hold Sir William Worsley void of reproach in the matter. We have reflected upon Sir William Worsley's conduct in a manner which the facts now brought before us show us to have been undeserved, and we desire to place this on record in reparation before closing our columns to all discussion of the topic.

THE DIFFUSION OF SMALL-POX.

MATTERS have not tended to improve during recent weeks in London as regards the prevalence of small-pox, the cases newly arising in the four weeks ended Saturday, June 29th, having been 5, 6, and 8, with a further considerable increase to 24 attacks, and a single registered death from the disease—namely, in an unvaccinated adult aged between twenty and forty years. The deceased belonged to the St. Giles sanitary area. The malady is thus seen to be on the increase in the metropolis, the patients remaining under treatment at the close of the last three weeks of June having risen from 19 to 22, and again to 34. Near at hand the borough of Bedford continues to suffer to a slight extent, though the disease makes no headway despite its presence in small amount. In the Midlands, Derby is still the chief centre of small-pox prevalence, though there the malady is dying out apparently, the cases having been only 2 or 3 in each of the last two weeks of June, as compared with more than 12 in the preceding week, but the deaths registered were 3 in the early part of the month. At Hayfield the guardians have had some little to-do on account of the presence of small-pox in their workhouse, and have been much exercised as to the best course to pursue in connexion with the feared spread of the disease by means of tramps, especially in view of the recent experience of Derby and New Mills in the matter of tramp-carried small-pox. There have been 5 cases in the house, including 1 fatal attack in a male adult. At Liverpool a death over a fortnight ago has been followed by one or two cases in and around the city, and Manchester has had a few cases in the past month, districts of the city previously free from the disease having been invaded, but every care has been taken to promptly isolate the infected persons. One case has occurred at Salford and some attacks are chronicled at Wigan, whilst at Oldham two deaths have been recorded in the last month, and the fresh cases have increased of late, until in the last fortnight of June there were a score of attacks heard of in the borough. But energetic measures are being adopted with a view of combating the disease. Small-pox wanes slowly in Dublin, where, in the two weeks ended June 22nd, the admissions to hospital were 13 and 11 respectively, with 9 and 13 discharges; 6 deaths were registered in the period, 4 in vaccinated adults aged over twenty years, and 2 in unvaccinated children under five years of age. The acute cases of the disease remaining under treatment on the 1st of the month numbered 41, and on the 22nd they were 31, besides 17 convalescents at Kilmainham. Sir Charles Cameron, the health officer of the city, fears that the disease will not die out before the winter recrudescence sets in.

THE POST OF PATHOLOGIST TO THE LONDON COUNTY COUNCIL.

DR. FREDERICK W. MOTT was elected on Wednesday last to the post of Pathologist to the London County Council. In securing the services of Dr. Mott, who, after a most distinguished career at University College, became assistant physician to Charing-cross Hospital and lecturer on physiology at the Medical School, we congratulate the Council upon choosing a man of wide practical knowledge of medicine and proved ability in the direction both of original work and scientific literature. Dr. Thomas D. Savill was, we understand, a close second to Dr. Mott, while Dr. W. Lloyd Andriezen, the pathologist and assistant medical officer to the West Riding Asylum at Wakefield, was also on the selected list.

AN OLD STORY.

"IT has been suggested that the facts are sufficiently remarkable and mysterious to make it worth while stating a case for THE LANCET." Such are the closing words of a newspaper cutting dated May 6th. We have waited patiently for the case to be stated, but so far it has not reached us, and all we can gather from the somewhat meagre materials to hand is that someone thought he vomited some wasps or bees which he imagined he had swallowed in the shape of one insect full of ova last summer. Of course the whole story is quite impossible. To begin with, we doubt the possibility of swallowing a live bee or wasp—dead ones, of course, would not be difficult—but either dead or alive they would soon be partially digested, and the idea of wasp or bee grubs hatching in the stomach is too ridiculous. The tale is only a variant of that which exists in all countries of people who have swallowed newts, earth worms, fish, frogs, &c. when little and which have grown to vast proportions and given rise to most distressing symptoms. Readers of Max Adeler may remember his delightful story of the man who swallowed the frog, which sat in his stomach and said "Blood an' oun" in a sepulchral voice at inopportune moments; but this kind of thing does not occur in real life.

THE EXTENSION OF EPSOM COLLEGE.

ON Monday, July 8th, His Royal Highness the Prince of Wales laid the foundation stone of the new Lower School at Epsom College. This extension has for long been desired by the Council, and by an Act of Parliament obtained last year the Council were enabled to open the school to all classes, special privileges being reserved for the children of medical men. We are glad to think that the boys will, since the passing of this Act, number representatives of all occupations and professions, for to live perpetually in an atmosphere, so to speak, of only one interest tends to narrowness, and we all know that the essence of education at a public school is not the mere book learning, but the self-government arrived at by intercourse with one's fellows—the learning

that individual interests must be subordinated to those of the whole body, and the *esprit de corps* which remains throughout after life. There is no body of men, perhaps, who deserve a place where their children can be taught and nurtured at a low cost more than medical men. They are very hardly worked, and they share with ecclesiastics the proud feeling of knowing that the more zealously and thoroughly they carry out their work, by so much the more they limit their opportunities for work. Many of both professions fall by the way; for the sons of the clergy there are already plenty of helpful institutions, but for those of medical men there is but one, and for this reason we are glad to see its foundations strengthened and its scope enlarged. We would impress upon members of the medical profession and upon those indebted to them that the present occasion is a fitting opportunity to afford the College that support without which its function, both as a great benevolent society and also as an educational institution, must be seriously impaired.

THE CENTRAL AUTHORITY AND A HEALTH OFFICER'S SALARY.

THE Millom urban council have decided to reduce the salary of their medical officer of health, and the Local Government Board have urged them not only to reconsider their decision, but they have suggested that the appointment should be made for a longer period than one year. The Millom authority then explained the reasons for the reduction, which reasons the Local Government Board declare to be inadequate. The Millom people now reveal their hand; they answer that if the post were advertised—which, by-the-bye, ought already to have been done—"there are other efficient medical gentlemen in the town who ..... would doubtless compete against the present medical officer." It is to be hoped that the Local Government Board will refuse to sanction half payment of the salary out of county funds if this attitude on the part of the Millom council is maintained; but it is infinitely more to be hoped that the medical profession will stand firm against the suggestion that they will underbid a colleague who, as the central authority declare, is by no means overpaid. A united front against such local action and a refutation of the calumny involved in the resolution of the local council are wanted in this instance.

THE VESICATING CONSTITUENT OF CROTON OIL.

IN a communication made to the Royal Society, Mr. Wyndham R. Dunstan, M.A., F.R.S., and Miss L. E. Boole, Lecturer on Chemistry in the London School of Medicine for Women, record the results of an experimental inquiry into the nature of the vesicating constituent of croton oil. According to the research of Buchheim, and more recently of Kobert and Hirscheydt, the vesicating action of croton oil is due to an acid closely allied to oleic acid, which has been given the name of crotonoleic acid, and which is now prepared for medical purposes on a large scale in Germany. The process consists, broadly, in the formation first of barium crotonoleate, and the subsequent decomposition of this with dilute sulphuric acid, and extraction of the liberated crotonoleic acid as a viscid oil with ether. By a process of fractional precipitation, using lead salts, the above investigators were able to separate from this so-called crotonoleic acid a large proportion of inactive oily acids, till at last they were successful in obtaining, by a series of operations in which alcoholic extraction and separation by means of lead oxide were made use of, a resinous substance having extraordinary power as a vesicant. The composition of this resin is expressed by the empirical formula $C_{13}H_{18}O_4$. All attempts to crystallise or to obtain crystalline derivatives failed. It is a hard, pale-yellow, brittle resin, nearly insoluble in water, light petroleum, and benzene, but readily dissolved in alcohol, ether, and chloroform. In regard to its constitution it is concluded that the vesicating constituent of croton oil is a lactone or an anhydride of complicated structure.

CAMBRIDGE MEDICAL GRADUATES' CLUB.

THE annual dinner of this club was held at 8 P.M. on July 4th at the Hotel Victoria, Northumberland Avenue, under the chairmanship of Sir G. M. Humphry, M.D., F.R.S., the president of the club. The Rev. Canon W. Page Roberts, Mr. Oliver Pemberton of Birmingham, and Mr. T. Pridgin Teale, F.R.S., of Leeds, were the guests of the club. The Chairman gave the toasts of "The Queen" and "The Club," Dr. Norman Moore proposed "The Health of the Guests," and Professor C. S. Sherrington, F.R.S., gave the toast of "The Chairman."

THE PHOTOGRAPHING OF PATIENTS.

AT a recent meeting of the guardians of St. George's-in-the-East the Rev. L. S. Wainwright complained that the medical officer of the infirmary had photographed a female patient of weak intellect in a nude state, and that thereby the friends of the patient were much incensed. The medical officer explained: (1) that he took the photograph in the interests of science, the woman having a peculiar malformation; (2) that the patient was not mentally deficient; and (3) that she was suitably attired and the matron or a nurse was present. A resolution was then passed to the effect that the medical officer should be instructed not to photograph any person thought to be of weak intellect without obtaining the consent of the board. At a meeting held on June 28th it was proposed to rescind the resolution, but the motion was lost. If the reports submitted to us be correct, a great deal of fuss seems to have been made about nothing. In the case of persons of weak intellect it would seem advisable to throw the responsibility of deciding whether they should be photographed or not upon the relatives or persons interested in the patient, and not upon the board. Boards should never have any responsibility laid upon them; however able the individual members may be, a board as a board is generally a useless body. Of course, no photograph of any patient should ever be published without the consent of the patient or the patient's representative; but we fail to see why a photograph should not be taken.

THE FUNERAL OF MR. HUXLEY.

THE very funeral of a great man has a peculiar interest of its own. This was peculiarly true of Huxley's. The place—which might have been Westminster Abbey—was the pleasant and rural cemetery for Marylebone at Finchley, looking beautiful, as even cemeteries do in July. The company was not numerous, but it was highly distinguished, including men representing all branches of science and learning. The Royal Society was personified in Lord Kelvin, the President; Professor Michael Foster, the secretary; and Sir John Evans, the treasurer. There were present, too, Mr. Lecky, Sir J. D. Hooker, the Rev. Dr. Dallinger, Professor Ray Lankester, and Dr. E. Frankland. The medical profession was not unrepresented, though the Presidents of the Royal Colleges of Physicians and Surgeons, respectively, were unable to be present. Sir James Paget, accompanied by Miss Paget, was there; also Sir Joseph Lister, Dr. Lauder Brunton, Mr. Henry Power, Dr. Burney Yeo, Dr. Felix Semon, Dr. Glover, and others. It was noticed that many working men were present. It was gratifying to see the great Agnostic buried with all the amenities of

Christian burial. One humble man asked if the ground was consecrated ground. The reply was that it was so, and the feeling of the reverent mourners was that henceforth it would be more consecrated than before. The service was read with much simple force by the Rev. John Llewelyn Davies, now Rector of Kirkby Lonsdale, formerly Vicar of Christ Church, Marylebone. Never was the momentous fifteenth chapter of the first epistle to the Corinthians read with more acceptance than over the great apostle of science who was more religious than he would admit or, perhaps, knew, and who, it is said, wished, a few days before his death, to be buried with the service of the Church of England. We scarcely regard this wish as one of the inconsistencies of a great man. Like other great men, with all the boldness of his thought, he knew the sharp limitation of his own knowledge. No deep student of his philosophy can charge him with irreverence or fail to see in his writing the conception that there is in the universe a Being whose "intelligence was as far beyond his own as that was beyond a blackbeetle's," "endowed with powers of influencing the course of nature as much greater than his as his is greater than a snail's."

CEREBRAL HÆMORRHAGE IN PURPURA HÆMORRHAGICA.

DR. NEWGARDEN of the United States army records in a recent number of the Philadelphia *Medical News* the case of a Swede aged thirty-eight who first sought advice on account of persistent oozing of blood from the cavity from which the second right upper molar had been removed on the previous day. Under appropriate treatment the bleeding ceased, and there was no recurrence in the few days during which he was kept under observation. A few weeks later, however, he again sought advice on account of weakness in the legs, and he stated that there were some spots on the skin. Examination revealed the existence of a number of large purpuric spots scattered over the legs from the ankles to the middle of the thighs. They underwent the usual changes and were rapidly disappearing when he one day complained of severe headache, became convulsed, lost the use of the left side, and passed into a comatose condition. Consciousness returned in an hour, but he soon lapsed into his former condition, and died four days after the initial headache and convulsion. During the few days that elapsed before his death there was incontinence and hæmaturia. At the necropsy it was found that the left ventricle was greatly dilated, with vegetations on both aortic and mitral valves, the latter being bound down by adhesions. The right ventricle was dilated, and the kidneys granular and cystic. A large hæmorrhagic extravasation was found over the right cerebral hemisphere, and there was also a clot in the middle lobe from rupture of a branch of the middle cerebral artery. The case is a curious one, and it might be suggested that the symptoms were the result of the cardiac and vascular conditions secondary to granular kidney, and not of the real but mysterious disease known as purpura hæmorrhagica.

THE testimonial to Sir Joseph Lister, to be given to him by his former colleagues and pupils on the occasion of his retirement from the active staff of King's College Hospital, will be presented to him at the Hospital on Tuesday, July 30th, at 4 P.M. The presentation will be made by Sir John Eric Erichsen, and in order that the necessary arrangements may be made Dr. J. Fredk. W. Silk, the honorary secretary of the undertaking, will be glad to hear from gentlemen intending to be present.

THE profession has heard with pleasure of the Knighthoods conferred upon Dr. Thornley Stoker, the President of the Royal College of Surgeons in Ireland, and Dr. Christopher Nixon, the Physician in Ordinary to the Viceregal household.

REPORT OF THE COMMITTEE ON PRISONS.

V.[1]

THE Committee deal at some length with the subject of the "nine months' separate confinement of convicts." This is ever a favourite topic for criticism when our prison system comes under consideration, and it was not likely to escape the scrutiny of the Committee.

"In the consideration of several matters contained in the reference we had to touch upon the practice of confining convicts for nine months' solitary imprisonment either in local or convict prisons. Objection was taken by some witnesses to the presence of these men in local prisons, though others specified that no special difficulty was thereby caused. As, however, the practice establishes in certain local prisons, which are the collecting centres for convicts, a class of men who have to be kept distinct from other prisoners, and who require special individual treatment, we felt it necessary to investigate the reasons for the practice. The history of it is interesting and suggestive. It was organised in 1842 by Sir James Graham, then Home Secretary." At this time, we are told, Pentonville Prison was designed on new and approved ideas for the reception of convicts sentenced to transportation, and was to be restricted generally to those who were convicted of their first offence and whose age was between eighteen and thirty-five. It was to be a prison of instruction and probation; the convict was to undergo eighteen months' solitary imprisonment, but he was to be freely visited by the chaplain and prison officials; he was to be trained in a productive industry; he was to be subjected to a progressive system of education on the class system; lectures were to be given to him in the prison chapel; he was to be kept in a state of cheerfulness; hope, energy, resolution, and virtue were to be imparted to him, and he was to be trained to be fully competent to earn his own way and become a respectable member in the penal settlements. If during the eighteen months he behaved well, he would at once receive a ticket of leave on arriving in Van Diemen's Land. It would have been sad indeed to its promoters if such a programme had proved a failure. Whatever may have been its permanent effect on the convicts in the penal settlements, we are told that the plan was worked apparently with great success so far as home treatment was concerned. The Commissioners for Pentonville thus report in 1844: "The effects produced on the minds and conduct of the prisoners by this system of separate confinement have been highly satisfactory." And they thus describe the general results: "Most satisfactory proofs of these beneficial impressions have been manifested in the great improvement which has taken place in the moral condition and conduct of the prisoners within a short period of their reception. In the course of our visits to the cells we have had the gratification of witnessing to a great extent their just appreciation of, and the deep interest which they take in, the moral and religious instruction which is imparted to them; the removal of the debasing effects produced on their minds by their former criminal pursuits; their progress in self-improvement; their cheerful obedience to the prison rules; their acquirements in the trades which have been allotted to them; and their gratitude for the treatment they have received under a discipline which combines instruction and reform." If we could bring ourselves to accept this eulogium as a fair criticism and not merely as a pæan of hope and trust, we would say "happy convict," and regret that only convicts had such a moral and religious opportunity. But it was too good to last and "in 1848 it was determined that, eighteen months being too long a period for isolated confinement, a system should be introduced based on a period of separate confinement, followed by a term of associated labour, with a maximum of twelve months. This was reduced by Lord Palmerston in 1853 to nine months." Our Committee go on to say that the original intention of Sir James Graham, which was that this period should be primarily of a reformatory character,

[1] Parts I., II., III., and IV. were published in THE LANCET of May 4th, 18th, 25th, and June 15th respectively.

appears fifteen years later to have been lost sight of. "It would appear," they add, "from Sir Joshua Jebb's evidence in 1863 that the main object of separate confinement had come to be deterrence." "An educated prisoner," he said, "would much prefer separate confinement instead of being driven to associate with people of bad character and difference in social position. With burglars and reckless bad characters, I think that separate confinement is dreaded more than any other kind of discipline." The Royal Commission of 1863 insisted on the necessity of enforcing the full nine months, and they proceed to say, "we think, too, that though separate confinement, even under the present system, is, as has been said, extremely distasteful to convicts, this wholesome effect on their mind might be increased. ..... There appears to us to be much force in the reasons which induced the directors of Irish convict prisons to adopt these means (lower diet, monotonous work, and less frequent visits) for rendering separate imprisonment more formidable, and we, therefore, recommend that attempts should be made, with due caution, to give a more deterrent character to separate imprisonment in the English prisons." From this it is to be gathered that there were reasons for looking upon the results of Sir James Graham's scheme as not being an unmitigated success. Our Committee say that the passage quoted "shows that Sir J. Graham's intention and scheme had perished, and that the period of imprisonment originally designed to train and improve prisoners for a good and useful life was now looked upon and intended to be the most formidable and coercive part of the punishment of penal servitude. In effect this is the purpose which it must be regarded as now designed to serve. It must, however, be admitted that the evidence seems to show that the Commissioners and the officials of the prisons have not either a complete knowledge of the history of the matter or a very clear idea of its working and effect. It is certainly a practical convenience in the sense that the expense of sending convicts immediately after sentence to convict prisons, either singly or in small detachments, is curtailed by the system of gathering prisons. This consideration alone is not sufficient to justify the practice. The argument that it is a necessary discipline for penal servitude, if true, is no argument for sending the convicts to local prisons. We do not regard the system with favour. We see no objection to short periods of detention in local prisons for the purpose of collecting parties for transfer to the convict prisons, but if the system is a good one at all we think it ought, so far as possible, to be worked out in convict prisons from first to last. We think that it cannot be denied that cases occur in which a nervous condition, agitated by remorse and by a long continuance of the separate system, may be injuriously affected by it. From the evidence before us we have no reason to believe that such cases are of other than exceptional occurrence. We think it is worth considering whether the severity of the system might not be mitigated by a substantial reduction in the period of separation and by the wise and carefully guarded introduction of such reformatory influences as were brought to bear on convicts at Pentonville when first established, and of such philanthropic agencies as appear to be engaged in behalf of separated convicts in the Belgian prisons." We have quoted the words of the Committee in full, lest, on a subject to which they naturally attach some importance, we should run the risk of mutilating their views. It is, to say the least, unfortunate that the Committee in various parts of their report do not restrict themselves to the use of the term "separate" in regard to the phase of prison life under consideration, because the idea of "isolation" which they introduce in the terms "isolated confinement" and "isolated imprisonment" has no place in connexion with the English prison system, and the use of the phrases is apt to mislead the uninitiated. We should have been glad if the Committee, in the expression of opinion which we have quoted above, had made it more clear to the ordinary reader that they were dealing with two totally different questions. It is a vital question as regards any prison system whether a period of "separate confinement" is or is not desirable; but it is quite unimportant, except as a matter of administration, whether that separate confinement is carried out in a convict or in a local prison. The Graham scheme of separate confinement has admittedly "perished"; but we are not informed whether it was departed from because it failed (latterly), or whether it failed because it was departed from (as to its conditions). The Committee are disposed to proclaim the ignorance of the Commissioners (we suppose they include the directors of convict prisons) and the officials of the prisons in this matter; but we are bound to say they do not attempt to clear it up themselves, and we should be glad to see the evidence upon which they base their assumption. We have already quoted the views held by the Commissioners of 1863 on this subject, and the Penal Servitude Acts Commission of 1879 state that "it has been suggested by some witnesses that the period of separate confinement which precedes removal to public works might be prolonged with advantage; but the limitation of the period to nine months is the result of much experience, and although the period might possibly be extended to twelve months without mental or physical injury to the majority of prisoners, we do not see any sufficient reason for disturbing the present regulation." Coming to more recent times, in their report for the year 1887-8 the directors of convict prisons deal with this very subject, while in Appendix No. 19 to that report is published a most valuable memorandum on separate confinement by the Medical Inspector of Prisons. If the Committee will take an opportunity of reading what is there stated they will find that neither the history of the subject nor its working and effect have been overlooked by officials of prisons who are responsible in the matter. In the beginning of his memorandum the medical inspector says: "The term 'separate confinement,' though convenient as a technical term by which to indicate a particular kind of prison discipline and management, is apt to convey to persons not familiar with the subject an erroneous impression of the circumstances under which a prisoner is placed either when undergoing a term of imprisonment in a local prison or when passing through the 'probation stage' of a sentence of penal servitude. He is not separated from his fellow creatures. On the contrary, he sees and hears as much of them as do many persons at liberty; quite enough to prevent the growth of any sense of isolation from the rest of mankind. The visits of the various officers, instructors, and schoolmasters are sometimes so frequent as to occasion discomfort, and I have no doubt that many prisoners would like to be left rather more to themselves. The prisoner of the present day is well cared for; he is supplied with all the necessaries, and not a few of the comforts, of life; and his existence is, to say the least, rendered very endurable." He concludes his remarks in the following terms: "I trust that I have succeeded in showing that the apprehensions formerly entertained as to the effects of separate confinement were groundless, and that it is as compatible with a healthy state of body and mind as any other form of imprisonment."

We await with interest the long-delayed publication of the evidence given before the Committee because at the present moment we are not satisfied that there exist any well-established grounds for "mitigating by a substantial reduction in the period of separation" what the Committee refer to as the "severity of the system."

OCULISTS' SEALS.

THE valuable articles which have from time to time appeared in the *Révue Archéologique* from the pen of le Capitaine Espérandieu upon Roman Oculists' Seals have now been gathered together and published in the form of a book.[1] This corpus of all the known oculists' seals, although modestly alluded to by the author as "a not useless work until another performs it better," is really an admirable specimen of what a monograph upon such a subject should be, and indicates prolonged and careful research in reference not only to the seals themselves, but to the many statements in classical authors upon medicine bearing on the matter. It is peculiarly complete because of the arrangement in a series of tabular forms of the whole of the seals; then of the collyria mentioned upon them; followed by another series giving every ocular disease mentioned upon the seals, together with the one or more collyria stated to have been effectual for their remedy; then a list of every collyrium is given with all the diseases each is said to have been curative of. These tables are all elaborately furnished with cross references, and the second one giving the list of collyria on the

[1] Recueil des Cachets d'Oculistes Romains. Par le Capitaine Émile Espérandieu. Paris: Leroux.

stamps is rendered immensely more valuable by being supplied with citations from the chief medical writers of antiquity, and also a list giving the name of the place where an oculist seal bearing the name of the collyrium has been found. In addition to these tables Captain Espérandieu also supplies an alphabetical list of all the oculists' names, and a chronological one of dates of discovery of the seals, commencing with 1606 and citing the authority for the texts engraved upon them. As is well known, these seals when found in perfect preservation usually bear the name of the oculist, manufacturer, or vendor, of the collyrium they were used to impress, then the name of the medicament itself, followed by instructions as to its usage, and sometimes indications for its mode of employment. The writer's diligence enables him to give about 200 seal inscriptions enumerating 149 different collyria and approximately eighty various titles for diseases of the visual organs.

One of the most interesting portions of the subject is the series of remedies and their constituents, and to this question the writer has devoted a great deal of attention. In one case we are enabled to have an absolute chemical analysis of several collyria. This is in the instance of those belonging to C. Firmius Severus, whose case of instruments and about 40 grammes of his collyria were found at Reims in 1854. The latter were analysed by M. Duguenelle, but apparently not separately according to their stamps. They contained organic matter, silica, peroxide of iron, black oxide of copper, oxide of lead, and carbonate of lime. It might naturally be supposed that the titles of the collyria, together with the names of the one or more diseases they were remedial of, and the references to them in ancient medical treatises, would certainly enable us to form a fairly correct idea of their various ingredients; but this frequently is not the case, for the necessary evidence fails. Nearly all the names are of Greek derivation only four or five at most being of Latin origin. Many of them manifestly are indicative of their manufacture, especially those commencing with the preposition διά, such as diaceros, or diacisias (of ivy), or diasmyrnes (from myrrh). Others merely supply the Greek word for the chief remedial ingredient, such as arpaston, amber; crocodes, saffron; stactum, oil of myrrh. But, on the other hand, many titles afford no clue to the substances referred to such as hyginon, salutary; diatessarium, the fourfold ingredients; and the following names, which are plainly derived merely from a eulogistic encomium of the properties of the material, as with some more modern preparations. Ambrosium, basilium, isochrysum, theochristum, theodotium, speak eloquently of their divine or regal origin; whilst simpler titles, such as chloron or cirron, allude merely to their colour.

M. de Mely, in an essay upon the subject some years ago, pointed out that in nearly a score of cases the appellatives are derivatives of the names of stones, such as the amethyst, sapphire, and turquoise; but these titles again are, doubtless, used merely to further impress upon the vulgar the extreme value of the preparations, and are not to be taken literally as the name of their actual constituents. The most important contents of the work are the maladies set forth in the list with explanations of their true meaning, as far as possible derived from classical medicine, each furnished with a full mention of all the collyria said to be designed for their cure. For instance, to the term "ad caliginem"—that is, obscurity of vision—no less than eleven names of collyria are given, but not satisfied with these, derived solely from the inscriptions, Captain Espérandieu refers us, giving chapter and verse, to Celsus, Paulus Egina, Dioscorides, Scribonius, Nicolas Myrepsus, Ætius, Galen, Actuarius, Marcellus, and Pliny for further knowledge.[2] For "ad lippitudinem," or ophthalmia, there are a score of remedies, and we are referred to Actuarius, Galen, Celsus, Ætius, and others. Among the remedies are dialibanum, or incense; spodiacum, or metallic fragments; amber, myrrh, and nard. The following may be given as a specimen of the inscriptions upon the stamps, because this one evidently belonged to a specialist on ophthalmia; it was found at Naix, in the department of the Meuse, and is now in the Louvre:—"Junii Tauri theodotium ad omnem lippitudinem: Junii Tauri anthermerum ad epiphoras et omnem lippitudinem: Junii Tauri penicille molle ad omnem lippitudinem: Junii Tauri diasmyrnes post impetum lippitudinis." Another seal of Junius Taurus has been found, and also four belonging to a Quintus Junius Taurus. Of all remedies myrrh and oil of myrrh seem to have been held in highest esteem, if we are justified in forming a definite conclusion from the 200 seals at present exhumed.

Our space will not permit of further notice of this interesting volume, as with all well-got-up modern works it is supplied with a bibliography of the subject, and also a list of ancient "oculists" mentioned in lapidary inscriptions other than their seals; and, finally, there is a supplement containing six new signets discovered in 1893-94, to which the publisher appends four blank pages, so that the student can fill in fresh ones as they come to light. Enough has, perhaps, been said to induce our readers to turn to the work for themselves; it is to be had for less than 10 francs, and will prove a welcome addition to the library of any medical man who desires, in his, perhaps, too rare moments of leisure, to ascertain something of the antiquarian history of his profession.

[2] Much information may be derived when the "Dynameron" of Elius Promotus is published. From a table of its contents preserved in a manuscript in the Escurial we are told that Chapters 92 to 107 are devoted to eye diseases, 96, 97, and 106, 107, and 108 being specially concerned with collyres, and Chapter 98 with liniments.—See Annuaire des Etudes Grecques.

THE MEDICAL DEFENCE UNION (LIMITED) AND THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY (LIMITED).

ON Wednesday, July 10th, the conjoint councils of the above organisations for the defence of the medical profession assembled at 20, Hanover-square, to consider the question of amalgamating the two bodies. Previously to the commencement of the meeting it was, we understand, decided that reporters should not be admitted, but on Mr. Hutchinson being voted to the chair the question was discussed, and on the motion of Dr. Purcell, seconded by Dr. Bridgwater, a resolution was put and carried deciding that members of the press should be admitted.

The Chairman then read the following letter which had been addressed to him by the Proprietors and Editors of THE LANCET:—

July 10th, 1895.

DEAR SIR,—In our position as Editors of THE LANCET we have never failed to be impressed with the urgent and crying need which exists for the foundation on a firm and assured basis of a really representative society devoted to the defence and protection of the interests of the whole medical profession. Various efforts have been made from time to time in this direction in the past, but until recent years they have been attended with little permanent success.

The establishment of the Medical Defence Union and later of the London and Counties Medical Protection Society has shown that with good organisation and management excellent results can be secured, but it appears to us to be an anomalous, unfortunate, and unnecessary circumstance that two different bodies, between which there must unavoidably be a certain amount of rivalry, should exist. No real good can be achieved without solidarity, cohesion, and practical unanimity.

We understand that at the meeting to-day the question of the possibility of fusion of the two societies will be seriously entertained. As a practical, and we hope helpful, token of our anxiety that this much to be desired result may be attained we shall be happy *on the completion of the amalgamation* of the Medical Defence Union and the London and Counties Medical Protection Society into one body to hand to the treasurer or treasurers of the newly-formed union or society or association a cheque for 100 guineas, and to place the columns of THE LANCET at the reasonable disposal of the union or society or association in whatever way may be mutually found to be most convenient and best calculated to promote the truest interests of the profession as regards the defence and protection of its individual members.

We are, dear Sir, yours faithfully,
(Signed.) THOMAS WAKLEY,
THOMAS WAKLEY, Jun.,
Editors of THE LANCET.

To the Chairman of the Meeting of the Councils of the Medical Defence Union and the London and Counties Medical Protection Society.

In explaining the object of the meeting Mr. Hutchinson said the members of the councils of each society had been summoned to an open conference to discuss the desirability and practicability of amalgamation. He suggested that the best method of conducting the business would be to move a simple resolution to the effect that these two societies should be amalgamated.

Mr. Victor Horsley moved, and Dr. Heron seconded, the following resolution, which was carried: "That in the opinion of this meeting it is most desirable that the amalgamation of the London and Counties Medical Protection

Society and the Medical Defence Union should forthwith be carried out."

Dr. Heron, in the hope of avoiding much discussion which might not altogether tend to smooth the way of amalgamation, proposed that their difficulties in the condition in which they at present stood should be referred to arbitration. He proposed that the legal advisers of the Medical Defence Union and of the London and Counties Protection Society should cause to be drawn up for submission to counsel and other competent persons a joint case, stating in a way fair to both societies the legal difficulties which beset their amalgamation, and also a joint requisition that counsel and other competent persons should advise the two societies as to the method best calculated to help their amalgamation in the way which would best secure the true interest of all concerned, with special regard to finance, dispatch, and reasonable economy of expense. He did not think that much good could result from this meeting discussing the history of the negotiations that had passed between the delegates of the two societies since 1893, but he thought that great and speedy good would come from the adoption of the principle of the proposal he had just made. He had purposely somewhat vaguely stated that the difficulties should be submitted to "counsel and other competent persons" because he did not wish to suggest to the meeting more than the lines on which they might run with comfort. By "competent persons" he meant men chosen by each society who would meet counsel specially skilled in company law, and so form a board to which their difficulties might be submitted. Personally, he thought it would be a wise thing if these men were made plenipotentiaries, and whatever decision they arrived at followed out loyally. All his council were in favour of amalgamation, but they wished to have an assurance that every step would be taken with the due observance of the safety of all, the saving of money, and expedition.

Dr. Alderson seconded the motion.

Mr. Victor Horsley was extremely unwilling to appear in this discussion in any degree in the sense of opposition to any reasonable proposition that might be laid before them, and no one could contend that they had not had a reasonable proposition, but he earnestly desired to see amalgamation carried out as speedily as possible, and he should very much regret the loss of time if this meeting came to an end without coming to a definite conclusion on the subject.

A long discussion then followed on the power of the meeting to vote, and on the question of certain details upon which the opinions of the lawyers, Mr. Hempson, Mr. Oakley, and Mr. Eustace Smith, were taken.

Mr. George Brown wished to substitute for Dr. Heron's resolution a similar one in simpler words, but Dr. Heron did not feel inclined to accept this. His resolution was again read to the meeting.

Mr. Stamford Felce thought they had advanced a stage since Dr. Heron proposed his motion.

Dr. Heron thought that the proposition would only cause matters to end in a deadlock.

Eventually Mr. Bruce Clarke suggested that two delegates from each society with legal advisers be appointed, with power to consult Mr. Buckley if necessary, to draw up a scheme to be laid before an adjourned meeting of the conjoint councils. This was agreed to, and a vote of thanks to the chairman terminated the proceedings.

On the motion of Mr. Hutchinson, seconded by Mr. Victor Horsley, thanks were returned to the Messrs. Wakley for their interest in the meeting and for their kind offer.

ROYAL MEDICAL BENEVOLENT COLLEGE, EPSOM.

MONDAY, July 8th, 1895, the occasion of the laying of the foundation-stone of the New Lower School buildings by His Royal Highness the Prince of Wales, will be rubricated in the annals of Epsom College. All Epsom seemed to take an interest in the event, and although the decorations cannot be described as profuse there could be no doubt that the inhabitants had done their best to do honour to the occasion. From Epsom Town Station, where a guard of honour of the East Surrey Volunteers received their Royal Highnesses the Prince and Princess of Wales shortly after 3 o'clock, along Church-street to the College, flags fluttered on either side. Banners bearing words of welcome to the Royal party were suspended along the route, and festoons of bunting decorated many of the houses. When the Royal party arrived at the College they were received by a guard of honour of the College Cadet Corps, and, accompanied by the President of the College, his Grace the Duke of Abercorn, and the Duchess, they were conducted to the dais by the Reception Committee, consisting of Sir Joseph Fayrer (chairman of the council), the Rev. Edward W. Northey (vice chairman), Dr. Constantine Holman (the treasurer), Mr. George C. Croft, Mr. Lumsden Propert, Mr. Lawrence, Mr. H. Vardon, Dr. Needham, Sir Arthur Watson, Q.C., and Colonel Gordon Watson. The Headmaster, the Rev. T. N. Hart Smith, was then introduced to His Royal Highness by Sir Joseph Fayrer, and Miss Alice Hart Smith, the Headmaster's little daughter, presented a bouquet of flowers to the Princess, which she received with her accustomed grace. At this stage of the proceedings the marquee in which the ceremony was performed presented an imposing spectacle. The glorious weather had tempted the ladies to put on their brightest attire, and the gay dresses, the decorations of bunting and flowers, blending with the cool of the evergreens, which, fanned by the soft breeze that pervaded the marquee, gracefully waved to and fro, the silent sea of interested faces—all this presented to the eye in the light of the sunshine subdued by the yellow and crimson striped awning a scene which is not likely to be soon forgotten by those who witnessed it.

After his introduction to the Prince the Headmaster read an address to His Royal Highness on behalf of the staff of the College, in which he tendered to the Prince their most respectful and hearty thanks for graciously consenting to lay the foundation-stone of the new Lower School and expressed the very great pleasure they felt in welcoming the Princess also on this occasion. Referring to the founder of the institution, John Propert, Mr. Hart Smith said his (the founder's) desire was to confer a lasting benefit on the medical profession by providing the means of best assisting their orphans and widows, and by founding a school where their sons might receive a first-rate education at as low a cost as possible; and with this end in view he appealed hopefully and boldly to the public at large to testify by their assistance of the scheme the gratitude they must ever feel to a body of men who gladly face many dangers and too frequently have their lives cut short in ministering to others God's merciful gifts of healing. These objects had been steadily kept in view, and after encountering periods both of sunshine and of gloom they were able this day to point with thankfulness to the firmly established position of Epsom College. The school had now for some years been quite full, and 250 boys, the sons of medical men and others with them, were being educated within its walls. Its scholars had succeeded in entering with credit the medical as well as other professions, and they had distinguished themselves by winning many open scholarships at the universities and at the London hospitals. No less than fifty boys were educated on the foundation, free of all cost, and in various ways, by means of scholarships and exhibitions; many others received assistance. The Council had recently been enabled to increase to £30 the yearly grants made to non-resident pensioners. The course of education given is similar to that in other public schools, and while fitted, especially in the direction of science teaching, to meet the wants of boys preparing for a medical career, it sought to impart to all classes of boys a healthy and liberal training, both mental and physical. The enlargement of the school on a free and wide basis had long been desired, and the new Act obtained by the Council last year had opened it definitely to all classes alike, while giving special privileges to the sons of medical men. It was now intended to place in this new building 100 of the younger boys, who will thus, in accordance with modern ideas, be separated from the main body of the school. Other necessary works were also in progress, foremost among them being the enlargement of the school chapel.

The Prince of Wales, in reply to the address, said: "I am very much obliged to Mr. Hart Smith for the address which we have just heard, and assure him and you and all who take an interest in the welfare of Epsom College the pleasure it gives to the Princess and myself to be present to-day and take part in this interesting ceremony. The account given of the school shows it to be in a prospering condition, and most

sincerely do I hope that it will ever continue so. For myself, I take a great interest in it, because forty years ago I was here with my father, who was unable previously to lay the foundation stone at the opening of the College. I am glad on this occasion to be able to lay the foundation stone of this Lower School, which will increase the College and, I hope, in every sense its usefulness."

The Venerable Robinson Thornton, D.D., Archdeacon of Middlesex, the first headmaster of the College, then asked the blessing of God on the laying of the foundation stone, and Mr. J. Lumsden Propert, son of the founder of the College, handed His Royal Highness the coins of the current year, with a copy of the *Times* newspaper and an illuminated scroll, which the Prince deposited underneath the stone. Sir Joseph Fayrer handed the silver trowel to the Prince, who proceeded to lay the stone, assistance being rendered by the architects (Sir A. W. Blomfield, A.R.A., and Sons), by the Clerk of the Works (Mr. J. R. Harding, A.I.C.E.), and by the builder (Mr. J. Dorey). The ceremony was brought to a conclusion by the singing of the "Old Hundredth" Psalm, and (in the unavoidable absence of the Bishop of Winchester, the Visitor of the College, owing to ill-health) the Lord's Prayer was recited and the Benediction pronounced by the Venerable J. H. Sapte, Archdeacon of Surrey and Rector of Cranleigh.

The band of the Artists' Corps Rifle Volunteers, by the kind permission of the Colonel commanding, Robert W. Edis, T.D., F.S.A., was in attendance and rendered a good programme.

The Prince and Princess having visited the College library, their Royal Highnesses and suite left amidst a volley of cheers by the South gate and drove to the Epsom Downs Station, where a guard of honour was again formed by the East Surrey Volunteers.

The trowel with which the ceremony was performed was constructed of silver with an ivory handle and bore the following inscription: "Presented to His Royal Highness the Prince of Wales on the occasion of his laying the Foundation Stone of the New Lower School, Royal Medical Benevolent College, Epsom. July 8th, 1895."

The Royal Medical Benevolent College was first projected in 1851 by the late John Propert; the buildings at Epsom were commenced in July, 1853; and on June 25th, 1855, the College was formally opened by H.R.H. the late Prince Consort, accompanied by H.R.H. the Prince of Wales. Since then large additions have been made from time to time, and they now provide ample accommodation for over 200 boys, besides those who occupy the Headmaster's boarding-house. The new Act obtained by the Council last year definitely opened the school to all classes, and it was decided to build a lower school.

The new buildings consist of a new complete school for 100 boys; an addition to the present chapel at the east end, which is to form the commencement of an entirely new chapel to replace the present one. The new school buildings consist of a master's house, including bedrooms and sitting-rooms for five unmarried masters and a common dining-room, six dormitories, five classrooms, and all other necessary accommodation. The building will be warmed by the induction of fresh air warmed by hot-water coils, the foul air being extracted by ventilating shafts. Red brick is being used in the construction of the buildings, with Bath stone quoins and dressings. The roofs will be covered with permanent green slates. Messrs. Dorey and Co. of Brentford are the builders, and Mr. Harding of Epsom is clerk of the works. The total cost of the new school will be £12,320, that of the addition to the chapel being £2525. Sir Arthur Bloomfield, A.R.A., and Sons are the architects.

INAUGURATION OF NEW SANITARY WORKS AT PARIS.

(FROM A SPECIAL CORRESPONDENT.)

THE Congress organised by the Society of Sanitary Architects and Engineers of France was preceded by the inauguration of the aqueduct and the irrigation fields of Achères. At ten o'clock in the morning on July 7th the members of the Congress had assembled on the new iron bridge which crosses the Seine from Colombes, on the peninsula of Gennevilliers, where the first sewage farm was established, to Argenteuil. Under the carriage-way of the bridge are four large iron pipes, which receive the sewage raised by the pumps of Colombes. Here there are engines of 1200 horse-power that raise 2 cubic metres of sewage per second from the altitude of 24 metres to a point at Argenteuil at an altitude of 60 metres. From this elevation the sewage will be able to reach by gravitation the most distant irrigation fields. On the bridge a handsome verandah had been erected, with a platform underneath. The chair was occupied by M. Poubelle, Prefect of the Seine; and by his side were M. Baudin, Vice-President of the Paris Municipal Council, and representatives from the Ministers of the Interior, Public Works, and Agriculture. M. Poubelle delivered a very eloquent speech, giving a retrospect of the sanitary works accomplished. He explained that the Paris main sewers threw into the Seine 391,000 cubic metres of sewage per day, or 143,000,000 cubic metres per annum, containing per annum about 10,000,000 kilogrammes of nitrogenous substances which might be estimated at about 20,000,000 francs. Thus £800,000 worth of fertilising agents are lost annually. Three generations of engineers had sought to prevent this waste—Belgrand, Alphand, Mille, Couché, and Durand-Claye, the latter being "the sincere and persuasive advocate of the principle now accepted: 'all to the sewer and nothing to the river.' In 1900 the peoples of the world who would come to Paris to pacifically celebrate the advent of a new century will be able to admire and marvel at the perfect health the French capital would then enjoy. They will study the harmonious working of its organisation and will see in its innumerable canalisations the realisation for towns of the principles of the circulation of the blood in the human body. Like arteries reaching the utmost extremities, so will pure spring water be brought by pipes to every house and every tenement. Then from every dwelling, drain-pipes and sewers, like veins, will bring the sewage to be revivified in the pores of the earth, and by the action of the plants which will derive their nutriment from the impurities of these waters. The contemplators of this system will understand the lofty character of the lesson in natural philosophy that results from these phenomena. They will celebrate under a multiplicity of forms and appearances the grand unity of science, and they will carry away with them the conviction that the study of life and its laws can prove as beneficent for a town as for an individual, and that man is all the nearer to truth as he succeeds more and more in borrowing from nature its processes and in faithfully conforming to its laws."

M. Baudin spoke of the desire of the Paris Municipality not to compromise the interests of the neighbouring districts, but, on the contrary, to enrich their agricultural resources. They would find that the advent of sewage in the arid plains that would now be put under cultivation would not only save the Seine from pollution, but would enrich the suburban districts. After some more speeches the members of the Congress, whose presence greatly increased the imposing appearance of this function, went to Argenteuil, where a midday banquet had been prepared. This repast was, of course, followed by the toasts suitable to the occasion. Then the members of the Congress went by train to Herblay and crossed over the Seine to the 800 hectares of the plain of Achères which are to be fructified by the Paris sewage. They were able to see the first trenches made for the reception of this sewage and to inaugurate its advent on the farm.

On the following Monday morning the work of the Congress commenced at the Palace of the Liberal Arts in the Champ de Mars. On behalf of the Minister of the Interior the sitting was presided over by M. Monod, Chief of the Sanitary Services of France, who in his opening speech paid a handsome tribute to the fifteen representatives of the British Association of Sanitary Inspectors present at the Congress. On the previous evening these gentlemen, together with the other members of the Congress, had been entertained at the Ministry of the Interior by M. Leygues, the Minister. The band of the Republican Guard discoursed sweet music in the illuminated gardens of the Ministry, alternated by singing and recitations in-doors, given by some of the most celebrated performers from the Théâtre Français and other Paris theatres.

The Congress has been organised in a very practical manner. Its official sittings are held from nine to half-past eleven each morning, and two subjects only are set down for discussion. A reporter for each subject has been appointed, and his report, generally terminating in a series of resolutions, has been printed and circulated among the members. Thus all the members know what will be discussed

and on what they will have to vote. In the afternoon the subjects of discussion are left to the initiative of private members, and then follow visits to sanitary services. Thus on Monday the Congress visited the disinfecting establishment of the Rue de Récollets. This is one of the most perfectly installed disinfecting stations in all Europe. It was fully described in THE LANCET during the course of the recent cholera epidemic. On Tuesday afternoon the Congress visited the pneumatic drainage works of the Société de Salubrité at Levallois-Perret. On Wednesday the Congress will inspect the sewers, and on Thursday the public slaughter-house.

Paris, July 9th.

THE CHANGES AND ALTERATIONS IN THE CHARTERS AND BY-LAWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND SUGGESTED BY THE ASSOCIATION OF FELLOWS.

THE deputation from the Association of Fellows which was received by a committee of the Council of the Royal College of Surgeons of England on the 10th ult. was requested to draw up a *précis* of the reasons adduced in support of their suggestions for the amendment of the charters and by-laws. This has been done, and the following is the paper which the deputation has sent in, and which is now being carefully considered by the committee of Council. Although we insert the paper with pleasure we do not wish to be considered as endorsing editorially the various suggestions of the Association of Fellows, many of them being open to criticism from our point of view.

1. That it shall be lawful for the Fellows in meeting assembled to appoint an annual committee or other committee to consider and report on subjects referred to them and to confer when necessary with the Council.

The concession of half-yearly meetings of Fellows already granted by the Council requires to be supplemented by power being given to the Fellows to appoint a standing committee. No large body of men ever meet without the capability of appointing a committee to thrash out and summarise subjects and elaborate details. Moreover, it is desirable that such a committee should be intra-mural and official, instead of the work of such a committee being left to voluntary and extra-mural associations or societies of Fellows. Such a committee would (*a*) elicit and collect the opinions of the Fellows on subjects of importance, and would (*b*) act as a medium of communication between the Fellows and the Council. The duties of the committee, therefore, would be to consider all subjects referred to them by the Council and by the Fellows at the half-yearly meetings, and to report thereon, and to confer, when necessary, with the Council. It appears to the Association that the committee could be advantageously organised as follows. The committee might consist of twenty-four Fellows, twelve of whom should be elected from the Fellows resident in the London postal district, and twelve from the Fellows in the provinces. The election of the committee should take place annually at the July meeting of the Fellows by the Fellows present at the meeting. The first committee should be elected at the next ensuing meeting of Fellows after the establishment of the committee, notice of the election having been given in the agenda of that meeting. Subsequent annual committees should be elected as follows. Each candidate should be nominated by three Fellows, such nominations to be sent in to the annual committee a month before the July meeting of the Fellows. It would be the business of the annual committee to prepare a list of candidates so nominated, and the candidates would then be balloted for at the July meeting. The twelve metropolitan Fellows and the twelve provincial Fellows with the highest number of votes respectively would be the successful candidates and constitute the annual committee for the ensuing year. Five members of the committee should form a quorum. The committee would appoint its own chairman. The meetings of the committee should be held in the common room at the College. Regular meetings of the committee should be held as often as requisite, but not less than once in three months.

2. That some change be made in the mode of election of the President of the College in accordance with the vote recently given by the Fellows.

At the recent poll of the Fellows upon this subject, out of 418 valid answers 268 voted in favour of election by the Fellows of the College, either with or without nomination by the Council, and 150 for the present method, thus showing a majority approaching to two-thirds in favour of a change being made in the mode of election of President. In view of such voting it appears to be due to the Fellows that the Council should take this question into careful consideration.

3. That no alteration in the constitution or external relations of the College shall be effected without the body corporate being convened to discuss such proposed alteration.[1]

This proposition has always been regarded by the Association as a fundamental principle, and as an almost self-evident constitutional axiom. Although this principle has never been seriously contested it has only been partially acted upon by the Council. It is, however, so vital to the well-being of the College that the Association feels it to be essential that it should be incorporated in a new Charter.

4. That the system of substitute members of council be abolished.

The Association is of opinion that all the members of the Council should be upon an equal footing in regard to their term of service, and that the apparent advantage to the constituency of the additional elections occasioned by the adoption of the system is outweighed by the inconvenience and possible hardship to the individual members of the Council elected as substitute members. If the more frequent elections are considered by the Council as an advantage, such advantage would be gained better by shortening the term of office of councillors to six years. It has been objected that the system of substitute members is necessary for the satisfactory technical working of the elections, but if the Charter was amended so as to give each elected member of the Council an eight-year term of office instead of compelling three members of the Council to retire annually there would be no difficulty. One year there might be more and another fewer vacancies, as, indeed, is the case at present more or less, but all the members of the Council would be on that footing of equality which is the object of the suggestion.

5. That members of the Council shall not be eligible for re-election after serving for two full periods of eight years.

It is felt by the Association that a period of sixteen years' service on the Council is ample from the point of view of the interests of the College, despite the fact that this period has been exceeded at present only in a limited number of instances.

6. That the Council shall have power to increase the number of the members of the Court of Examiners from ten, as now limited, to any number not exceeding twenty.

It is to be noted that the insertion of such a provision in a new Charter would not render an increase of the number of examiners compulsory upon the Council, but would allow the Council to appoint additional examiners if the necessity for an increase should arise, as it may do at any time. At present the work of members of the Court of Examiners is at least as exacting as they can discharge with advantage to the College and the candidates, and it cannot be expected that overworked examiners should discharge their duties satisfactorily. It would seem, therefore, obviously for the interest of the College that the Council should have power to increase the number of examiners, and such an increase might be of service either with a view to a fairer division of labour than now exists to admit of the appointment of examiners in special branches or for a more comprehensive representation of schools.

7. That members of the Court of Examiners of the Royal College of Surgeons of England shall be elected annually and that no member of the Court shall hold office for more than five consecutive years, and that at the expiration of this term he shall not be again eligible until after a period of two years has elapsed.

Under the present Charters a member of the Court of Examiners holds office for five consecutive years and is immediately re-eligible on the expiration of that term. This regulation is at variance with the general rules observed at

[1] In the original document sent to the secretary of the College the words "without the consent of the body corporate convened to discuss such alterations" were used owing to the transcription by mistake of an earlier form of a resolution passed at one of the general meetings at the College.

other licensing corporations in the election of surgical as well as other examiners. It is also at variance with the regulations adopted by the Council itself in respect to the appointment of examiners at the College in other subjects. This discrepancy is the more noteworthy because examination of candidates in anatomy and physiology formed a part of the duties of members of the Court of Examiners for many years, so that this curious condition of things exists—viz., that the rules adopted by the Council for the Board of Examiners in anatomy and physiology separated by the Council from the Court do not conform to the regulations of the Charter in respect to that Court. This fact alone would justify the Association in asking the Council to consent to apply for a new Charter, even if it were not supported by the obvious necessity that the Council should have an equal control over the surgical as over other examiners of the College.

8. That the meetings of the Fellows, the change in the mode of election of the President, the limitation of the terms of office of members of the Council and members of the Court of Examiners, and the annual general meeting of Fellows and Members for the reception of the report of the Council shall be provided for in a new Charter, and that the conduct of the meetings at the College and other matters referred to shall be regulated by by-law.

The changes already made by the Council and those suggested by the Association are of so great and even vital importance that they should be enacted in due form and regulated either by Charter or by-law. Regulations of the Council are not of sufficiently stable a character to give due weight to fundamental constitutional enactments, neither should it be left to the good pleasure of a fluctuating body like the Council to withdraw the privileges deliberately conferred upon the Fellows and Members for the good of the institution, the profession, and the public.

THE HEALTH OF THE CITY OF BELFAST FOR 1894.

DR. WHITAKER, medical officer of health for the city of Belfast, has just submitted his annual report, in which there are several very interesting matters. The number of deaths registered in 1894 is less than in either of the two previous years, while the death-rate from zymotic diseases is lower than in 1893, nearly 50 per cent. being caused by measles; while the deaths from phthisis and diseases of the respiratory organs are less numerous than they have been for many years past. In speaking of the cases of infectious disease, Dr. Whitaker admits that the returns are of little value because he has no means of ascertaining the number of cases other than those treated by the dispensary medical officers or at the Union Hospital. The Notification of Infectious Diseases Act is not in force in Belfast, and hence Dr. Whitaker has not the information medical officers have in many other cities, and we are afraid the late trial in Dublin, where a medical man was cast in damages, will tend very much to delay the desire of the authorities, or indeed, of medical men, to see this Act working in Belfast. At present the dispensary districts are co-extensive with the registrar's districts, and the medical officer of each of them is registrar and medical officer of health for his own division. In his report Dr. Whitaker gives the boundaries of these districts; we hope in his next work he will improve on this by adding a map of the city with the various registrars' districts clearly indicated. It would be a valuable addition to his report. Dr. Whitaker assumes the population for the past year to have been 285 000, and on this basis he calculates the birth-rate as 32·8 and the death-rate as 23·2. There were during the year 9349 births and 6615 deaths. Of these deaths, in 1894 2511, or more than one-third, were due to phthisis and respiratory diseases. The deaths from phthisis would seem in Belfast to be little influenced by either the seasons of the year or the state of the weather. The deaths from diarrhœa were less numerous than in any of the four preceding years. The number of deaths from typhoid fever shows an increase on the preceding year, and some facts stated by Dr. Whitaker are of great interest as bearing on the *quæstio vexata* of the etiology of this complaint. He finds that the greatest number of cases occurred in the neighbourhood of the Crumlin and Shankhill-roads—that is, in a district of Belfast which it would be expected would be one of the healthiest occupied by the working classes. It is well elevated above sea-level, its roads and streets, as Dr. Whitaker points out, are wide and open, its houses comparatively newly built, and yet enteric fever is more prevalent here than in other parts of Belfast inferior to it both in position and in sanitation. But there are other more puzzling features to be explained. In this district are placed the military barracks and the city prison, built on somewhat similar soil and supplied with water from the same source, and yet typhoid fever is practically unknown in these institutions. In the union workhouse (with between 3000 and 4000 inmates) only one case of typhoid fever was returned as sent into the hospital from this disease during the year, and the disease was not contracted in that house. In the deaf and dumb institution, adjoining, the same state of affairs has occurred—viz., no cases of typhoid fever—while in the lunatic asylum (a place very much overcrowded) no case of typhoid fever, or, indeed, of any contagious or infectious disease, has occurred during the past three years. From these facts Dr. Whitaker concludes that there is nothing naturally present in the air, soil or water, which would make typhoid fever more prevalent at Belfast than elsewhere, and that, if the same sanitary arrangements and regularity of living were adopted by the public generally that is carried out in the public institutions, this disease would be almost unknown in Belfast. Another explanation for the prevalence of typhoid fever in the Crumlin and Shankhill districts was given at the meeting of the Belfast board of guardians, on July 2nd, by Dr. Gibson. He stated that no fewer than forty-seven cows were without any supply of pure drinking water and were compelled to consume sewage or water contaminated with sewage on grazing land inside the city. The district referred to by Dr. Gibson is near to the Crumlin and Shankhill parts of the city, and the natural inference is that in this way, by the milk of cows drinking sewage, the disease may be transmitted. He thought the public health committee should have seen that a proper water-supply was obtained for the cows in the fields. In the district from which he (Dr. Gibson) came, Ballymacarrett, typhoid fever was entirely absent. In referring to diphtheria, Dr. Whitaker says the disease seems to be increasing in Belfast, an experience similar to that in England. Typhoid fever is dying out, and there were only 4 cases of small-pox—a very interesting fact considering the close connexion of Belfast and Dublin, where there has been such a great epidemic. Dr. Whitaker attributes the comparative freedom from small-pox to the prompt action taken to isolate and disinfect any house in which the disease occurs, but more particularly to the care taken, not only by the medical profession but also by the people themselves, in the matter of vaccination. Here are a few facts on the vaccination question given in this thoughtful report. In the year 1891 there were 25 cases of small-pox; of these, 23 patients had been vaccinated of whom one died; 2 were not vaccinated, and both, though young and strong, died. In 1893 there were 19 cases of small-pox, all of which were treated in the Union Hospital, and, although some of the cases were severe, there were no deaths, and in every case the patient had been vaccinated. In reference to the water-supply of Belfast, Dr. Frankland of Dundee, to whom Dr. Whitaker sent a supply for analysis, reports that "as regards the fitness of the water for the supply of a large city, it is of a medium quality for such a purpose." Other matters referred to by Dr. Whitaker in his most interesting report are the high infant mortality, the want of a suitable hospital for phthisis, the question of disinfection—especially in cases of small-pox and typhoid fever, the sanitary defects in schools and in working-class houses, and personal and home cleanliness.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

MEETING OF FELLOWS.

A MEETING of Fellows of the College was held on the 4th inst. at 5 P.M., the President, Mr. Christopher Heath, being in the chair. Forty-five Fellows, including fourteen members of the Council, were present. The Secretary having read the minutes of the meeting in January, the President said that since the last meeting the College had had to deplore the

loss by death of several distinguished Fellows; firstly, Mr. Hulke, who died while President and only a few days after the Hunterian Oration; he had perished through his devotion to duty, for his fatal illness had resulted from his going in the middle of the night during the severe winter weather to operate on a hospital patient; Sir William Savory also, who had held the position of President of the College for four years; Mr. Arthur Durham, who was for many years an active member of the Council; and, lastly, Mr. Thomas Huxley, who was elected a Fellow in 1883, who had the great honour of being a Privy Councillor, and whose wide knowledge had done so much to advance science.

The President then reported that the alterations in Sections 4, 16, and 25 of the By-laws had been approved by the late Home Secretary and the late Lord Chancellor, and had become by-laws of the College. The alterations in Section 4 provided that voting papers for the election of members of the Council be sent to all Fellows and permitted them to be received up to the time of the commencement of the election, and under this modified by-law the election on the 4th inst. was held. The alteration in Section 16 was to give increased power to the Council in dealing with cases of unprofessional conduct on the part of Fellows or Members of the College. Some opposition had been offered to the suggested change by some Members, and the late Home Secretary had advised the insertion of the words "after due inquiry," and in this modified form the by-law had been ordained. The third alteration increased the fee for the dental licence from ten to twenty guineas.

The President further stated that the Council had decided that it was not expedient to accede to the resolution passed at the meeting in January, but that a committee of the Council had been appointed to receive deputations from the Fellows of the College upon the subject of the resolution—viz., the question of the mode of election of the President. One deputation had been received, the matter was discussed, and a further meeting was to be held shortly. This concluded all the business on the agenda.

QUARTERLY MEETING OF THE COLLEGE: ELECTION OF PRESIDENT.

A quarterly meeting of the College was held on Thursday, July 11th, Mr. Christopher Heath, President, in the chair.

The President reported the result of the meeting of Fellows held on the preceding Thursday for the election of Members of the Council.

Mr. Christopher Heath was re-elected President of the College, and Mr. Reginald Harrison and Mr. Pickering Pick were appointed Vice-Presidents.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6420 births and 3564 deaths were registered during the week ending July 6th. The annual rate of mortality in these towns, which had risen in the three preceding weeks from 15·4 to 16·7 per 1000, further increased last week to 17·5. In London the rate was equal to 18·0 per 1000, while it averaged 17·2 in the thirty-two provincial towns. The lowest rates in these towns were 9·1 in Croydon, 10·0 in Brighton, 10·6 in Nottingham, 11·0 in Bristol, and 12·2 in Portsmouth; the highest rates were 20·1 in Newcastle-upon-Tyne, 20·4 in Blackburn, 21·4 in Bradford, 21·8 in Salford, and 24·4 in Liverpool. The 3564 deaths included 665 which were referred to the principal zymotic diseases, against 400 and 493 in the two preceding weeks; of these, 337 resulted from diarrhœa, 131 from measles, 71 from diphtheria, 62 from whooping-cough, 31 from scarlet fever, 25 from "fever" (principally enteric), and 8 from small-pox. No fatal case of any of these diseases occurred last week in Brighton, Huddersfield, or Halifax; in the other towns they caused the lowest death-rates in Gateshead, Portsmouth, and Croydon; and the highest rates in Liverpool, Leeds, Wolverhampton, West Ham, and Leicester. The greatest mortality from measles occurred in Newcastle-upon-Tyne, Plymouth, Manchester, Blackburn, and West Ham; from whooping-cough in Norwich, Derby, Burnley, Sunderland, and Bolton; and from diarrhœa in London, Cardiff, Salford, Wolverhampton, and Leicester. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 71 deaths from diphtheria included 53 in London, 4 in West Ham, 3 in Salford, and 3 in Leeds. Four fatal cases of small-pox were registered in Oldham, 3 in London, and 1 in Liverpool, but not one in any other of the thirty-three towns. There were 42 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, July 6th, against 19, 22, and 34 at the end of the three preceding weeks; 17 new cases were admitted during the week, against 2, 8, and 25 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2044, against 1637, 1732, and 1894 on the three preceding Saturdays; 311 new cases were admitted during the week, against 199, 251, and 319 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 186 and 160 in the two preceding weeks, were again 160 last week, and were 38 below the corrected average. The causes of 58, or 1·6 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Bristol, Cardiff, Nottingham, and in eight other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Birmingham, Liverpool, and Salford.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 19·4 and 19·2 per 1000 in the two preceding weeks, rose again to 19·4 during the week ending July 6th, and exceeded by 1·9 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 13·7 in Perth and 14·9 in Leith to 21·4 in Glasgow and 25·1 in Greenock. The 560 deaths in these towns included 57 which were referred to diarrhœa, 18 to measles, 10 to whooping-cough, 5 to scarlet fever, 4 to diphtheria, 3 to "fever," and 1 to small-pox. In all, 98 deaths resulted from these principal zymotic diseases, against 76 and 78 in the two preceding weeks. These 98 deaths were equal to an annual rate of 3·4 per 1000, which slightly exceeded the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of diarrhœa, which had increased from 25 to 48 in the three preceding weeks, further rose to 57 last week, of which 43 occurred in Glasgow, 3 in Edinburgh, and 3 in Paisley. The deaths referred to measles, which had been 14 in each of the three preceding weeks, rose to 18 last week, and included 7 in Glasgow and 5 in Paisley. The 10 fatal cases of whooping-cough exceeded by 1 the number in the preceding week, and included 5 in Glasgow and 3 in Aberdeen. The deaths from scarlet fever, which had been 7 and 1 in the two preceding weeks, were 5 last week, of which 4 occurred in Glasgow. The 4 fatal cases of diphtheria were within 1 of the number recorded in the preceding week, and included 2 in Glasgow, where the death from small-pox was also registered. The deaths referred to diseases of the respiratory organs in these towns, which had been 94 and 99 in the two preceding weeks, declined again to 79 last week, but exceeded by 22 the number in the corresponding week of last year. The causes of 33, or nearly 6 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 20·1 and 22·4 per 1000 in the two preceding weeks, further rose to 24·9 during the week ending July 6th. During the thirteen weeks of the last quarter the death-rate in the city averaged 27·3 per 1000, the rate during the same period being 16·7 in London and 18·8 in Edinburgh. The 150 deaths registered in Dublin during the week under notice showed an increase of 17 upon the number in the preceding week, and included 11 which were referred to the principal zymotic diseases, against 16 and 9 in the two preceding weeks; of these, 6 resulted from diarrhœa, 2 from scarlet fever, 1 from diphtheria, 1 from whooping-cough, 1 from "fever," and not one either from small-pox or measles. These 11 deaths were equal to an annual rate of 1·6 per 1000, the zymotic death-rate during the same period being 4·0 in London

MONTHLY ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON—JUNE, 1895.

(Specially compiled for THE LANCET.)

SANITARY AREAS.	Estimated population in the middle of 1895.	NOTIFIED CASES OF INFECTIOUS DISEASE. Small-pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Erysipelas.	Cholera.	Total.	Annual rate per 1000 persons living.	DEATHS FROM PRINCIPAL INFECTIOUS DISEASES. Small-pox.	Measles.	Scarlet fever.	Diphtheria.†	Whooping-cough.	Typhus fever.	Enteric fever.	Other continued fevers.	Diarrhœa.	Total.	Annual rate per 1000 persons living.	Deaths from all causes.	Death-rate per 1000 living.	Deaths of infants under one year to 1000 births.
LONDON	**4,392,346**	**43**	**1375**	**844**	**2**	**172**	**10**	**10**	**364**	**3**	**2823**	**8·4**	**2**	**262**	**53**	**151**	**83**	**1**	**24**	**1**	**178**	**765**	**2·3**	**5019**	**14·9**	**123**
West Districts.																										
Paddington	122,756	—	43	20	—	3	—	1	9	—	76	8·1	—	1	—	3	—	—	—	—	2	6	0·6	116	12·3	134
Kensington	167,671	—	30	19	—	2	1	1	12	—	65	5·1	—	—	1	4	—	—	—	—	12	17	1·3	149	11·6	152
Hammersmith	106,429	1	20	15	—	3	1	—	5	—	45	5·4	1	1	1	3	1	—	1	—	5	13	1·6	97	11·7	165
Fulham	117,745	—	25	35	—	1	—	—	8	—	69	7·6	—	2	1	10	4	—	—	—	2	19	2·1	135	14·9	110
Chelsea	99,930	—	44	16	—	2	—	—	—	—	62	8·1	—	1	—	4	2	—	—	—	7	14	1·8	96	12·5	139
St. George Hanover-square	74,037	1	23	6	—	1	—	—	9	—	40	7·0	—	—	—	—	2	—	—	—	2	4	0·7	79	13·9	112
Westminster	54,003	3	19	9	—	1	—	—	5	—	37	8·9	—	—	2	—	—	—	—	—	2	4	1·0	71	17·1	120
St. James Westminster	23,149	—	7	1	—	—	—	1	3	—	12	6·8	—	—	—	—	—	—	—	—	—	—	—	15	8·4	136
North Districts.																										
Marylebone	137,392	—	30	20	—	11	—	—	24	—	85	8·1	—	—	1	1	1	—	1	—	5	9	0·9	135	12·8	86
Hampstead	77,592	—	22	8	—	3	2	—	1	—	36	6·0	—	—	1	—	1	—	1	—	1	4	0·7	57	9·6	107
St. Pancras	233,543	1	64	40	—	11	—	—	25	—	141	7·9	—	—	4	6	3	—	1	—	9	23	1·3	257	14·3	135
Islington	335,929	1	110	34	—	4	1	1	26	—	177	6·9	—	21	1	4	6	—	—	—	15	47	1·8	343	13·3	119
Stoke Newington	35,254	—	9	6	—	3	—	—	1	—	19	7·0	—	1	—	—	1	—	—	—	2	4	1·5	27	10·0	15
Hackney	215,623	—	78	29	—	2	—	—	19	—	128	7·7	—	14	7	6	6	—	1	—	11	45	2·7	219	13·2	121
Central Districts.																										
St. Giles	37,654	1	16	7	—	1	—	—	3	—	28	9·7	1	—	1	2	3	—	—	—	2	9	3·1	46	15·9	99
St. Martin-in-the-Fields	13,536	—	2	1	—	2	—	—	—	—	5	4·8	—	—	—	1	—	—	—	—	—	1	1·0	16	15·4	250
Strand	22,586	2	3	1	—	—	—	—	1	—	7	4·0	—	—	1	—	—	—	—	—	—	1	0·6	39	22·5	136
Holborn	32,188	1	11	3	—	2	—	—	5	—	22	8·9	—	3	—	1	—	—	—	—	4	16	1·6	37	15·0	119
Clerkenwell	65,036	1	35	7	1	1	1	1	3	—	50	10·0	—	—	3	1	3	1	—	—	4	12	2·4	110	22·1	193
St. Luke	40,763	—	15	11	—	1	—	—	3	—	30	9·6	—	26	—	2	2	—	—	—	6	36	11·5	96	30·7	185
City of London	33,824	—	9	4	—	1	—	—	2	—	16	6·2	—	4	—	1	—	—	1	—	1	7	2·7	54	20·8	140
East Districts.																										
Shoreditch	122,932	—	40	22	—	3	—	—	15	1	81	8·6	—	17	2	6	2	—	—	—	15	42	4·5	191	20·3	182
Bethnal Green	130,061	1	46	29	—	7	—	—	19	—	102	10·2	—	10	4	9	4	—	1	—	8	36	3·6	180	18·0	125
Whitechapel	75,820	—	20	21	—	6	—	1	7	—	54	9·3	—	20	2	5	2	—	2	—	5	36	6·2	129	22·2	154
St. George-in-the-East	46,227	—	20	10	—	3	—	—	1	—	34	9·8	—	24	3	5	1	—	—	—	2	35	10·1	98	28·2	155
Limehouse	56,885	—	24	7	—	—	—	—	9	—	40	9·2	—	13	1	3	2	—	—	—	3	22	5·0	97	22·2	174
Mile End Old Town	108,443	—	43	42	—	1	—	—	7	—	93	11·2	—	21	2	8	4	—	—	—	4	39	4·7	156	18·8	139
Poplar	171,230	1	68	67	1	5	—	1	13	—	176	13·4	—	36	2	12	6	—	—	—	1	57	4·3	260	19·8	124
South Districts.																										
St. Saviour Southwark	26,570	—	4	6	—	1	—	—	4	—	15	7·3	—	—	—	2	4	—	—	—	2	8	3·9	29	14·2	113
St. George Southwark	60,168	2	13	11	—	1	—	—	4	1	32	6·9	—	4	2	—	5	—	—	—	4	15	3·2	101	21·9	199
Newington	119,358	2	19	33	—	2	—	1	8	—	65	7·1	—	1	—	3	8	—	1	—	7	20	2·2	156	17·0	130
St. Olave Southwark	13,065	—	—	—	—	1	—	—	—	—	1	1·0	—	—	—	—	—	—	1	—	—	—	—	14	14·0	91
Bermondsey	83,861	3	18	17	—	2	—	—	3	—	43	6·7	—	3	—	6	1	—	—	—	2	12	1·9	104	16·2	149
Rotherhithe	40,713	1	22	20	—	2	—	—	7	—	52	16·7	—	2	—	4	—	—	—	—	—	—	—	18	14·4	54
Lambeth	294,883	4	83	59	—	8	2	—	29	1	186	8·5	—	11	3	12	6	—	1	1	1	7	2·2	38	12·2	92
Battersea	165,130	—	78	37	—	2	—	1	22	—	140	11·1	—	18	6	6	2	—	—	—	6	38	3·0	193	15·2	122
Wandsworth	185,956	—	56	24	—	6	—	—	10	—	96	6·7	—	1	1	4	—	—	—	—	2	8	0·6	134	9·4	81
Camberwell	252,737	12	56	64	—	9	1	—	16	—	158	8·2	—	3	1	10	3	—	1	—	9	27	1·4	241	12·4	150
Greenwich	175,183	2	70	40	—	3	—	—	13	—	128	9·5	—	2	3	7	2	—	—	—	1	15	1·1	178	13·2	126
Lewisham (excluding Penge)	82,410	—	24	8	—	—	1	—	2	—	35	5·5	—	1	—	—	1	—	—	—	3	5	0·8	62	9·8	72
Woolwich	42,768	1	25	4	—	14	—	1	5	—	50	15·2	—	—	1	—	—	—	2	—	—	3	0·9	55	16·8	134
Lee	36,832	—	7	2	—	—	—	—	2	—	11	3·7	—	—	—	—	—	—	—	—	—	—	—	33	11·1	69
Plumstead	61,494	2	24	9	—	42	—	—	4	—	81	17·2	—	1	1	—	—	—	10	—	2	14	3·0	53	11·2	134
Port of London	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

* Including 43 cases of membranous croup.

† Including deaths from membranous croup.

and 1·3 in Edinburgh. The fatal cases of diarrhœa, which had 3 and 5 in the two preceding weeks, further rose to 6 last week. The mortality from "fever" corresponded with that recorded in the preceding week, while that from whooping-cough showed a decline. The 167 deaths in Dublin last week included 35 of infants under one year of age, and 39 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons exceeded those recorded in any recent week. Seven inquest cases and 3 deaths from violence was registered; and 54, or nearly a third, of the deaths occurred in public institutions. The causes of 9, or more than 5 per cent., of the deaths in the city last week were not certified.

VITAL STATISTICS OF LONDON DURING JUNE, 1895.

IN the accompanying table will be found summarised complete statistics relating to sickness and mortality during June in each of the forty-three sanitary areas of London. With regard to the notified cases of infectious disease in the metropolis during last month, it appears that the number of persons reported to be suffering from one or other of the nine diseases specified in the table was equal to 8·4 per 1000 of the population, estimated at 4,392,346 persons in the middle of the current year. In the three preceding months the rates had been 5·8, 5·7, and 6·8 per 1000 respectively. Among the various sanitary areas the rates were considerably below the average in Kensington, Hammersmith, St. Martin-in-the-Fields, Strand, St. Olave Southwark, Lewisham, and Lee; while they showed the largest excess in Bethnal Green, Mile End Old Town, Poplar, Rotherhithe, Battersea, Woolwich, and Plumstead. The prevalence of small-pox in London showed an increase during June, 43 cases being notified during the month, including 12 in Camberwell, 4 in Lambeth, 3 in Westminster, and 3 in Bermondsey sanitary areas. The Metropolitan Asylum Hospitals contained 33 small-pox patients at the end of June, against 54, 34, and 20 at the end of the three preceding months; the weekly admissions averaged 10, against 11, 7, and 5 in the three preceding months. The prevalence of scarlet fever in London showed a further marked increase upon that recorded in recent months; this disease was proportionally most prevalent in Clerkenwell, St. George-in-the-East, Limehouse, Rotherhithe, Battersea, Greenwich, Woolwich, and Plumstead sanitary areas. The Metropolitan Asylum Hospitals contained 1845 scarlet fever patients at the end of June, against 1485, 1413, and 1481 at the end of the three preceding months; the weekly admissions averaged 229, against 145, 132, and 167 in the three preceding months. The prevalence of diphtheria in London showed a further increase during June; among the various sanitary areas this disease showed the highest proportional prevalence in Fulham, St. Luke, Whitechapel, Mile End Old Town, Poplar, Newington, and Rotherhithe. There were 633 cases of diphtheria under treatment in the Metropolitan Asylum hospitals at the end of June, against 435, 430, and 508 at the end of the three preceding months; the weekly admissions averaged 109, against 62, 69, and 81 in the three preceding months. The prevalence of enteric fever in London showed a marked decline during June; this disease was proportionally most prevalent in Marylebone, Woolwich, and Plumstead sanitary areas. Erysipelas was proportionally most prevalent in Marylebone, Holborn, Bethnal-green, Limehouse, and Rotherhithe sanitary areas. The 10 cases of puerperal fever notified during June were considerably below the average.

The mortality statistics in the accompanying table relate to the deaths of persons actually belonging to the various metropolitan sanitary areas, the deaths occurring in the institutions of London having been distributed among the different sanitary areas in which the patient had previously resided. During the four weeks ending Saturday, June 29th, the deaths of 5019 persons belonging to London were registered, equal to an annual rate of 14·9 per 1000 of the population, against 30·0, 18·3, and 15·9 in the three preceding months. The lowest death-rates during June in the various sanitary areas were 8·4 in St. James Westminster, 9·4 in Wandsworth, 9·6 in Hampstead, 9·8 in Lewisham (excluding Penge), 10·0 in Stoke Newington, 11·1 in Lee, and 11·2 in Plumstead; the highest rates were 21·9 in St. George Southwark, 22·1 in Clerkenwell, 22·2 in Whitechapel and in Limehouse, 22·5 in Strand, 28·2 in St. George-in-the-East, and 30·7 in St. Luke. During the four weeks of June 765 deaths were referred to the principal zymotic diseases in London; of these, 262 resulted from measles, 178 from diarrhœa, 151 from diphtheria, 88 from whooping-cough, 58 from scarlet fever, 26 from different forms of "fever" (including 1 from typhus, 24 from enteric fever, and 1 from an ill-defined form of continued fever), and 2 from small-pox. These 765 deaths were equal to an annual rate of 2·3 per 1000, against 1·5 and 1·7 in the two preceding months. No fatal case of any of these diseases was registered during June in St. James Westminster, St. Olave Southwark, or Lee; in the other sanitary areas the lowest zymotic death-rates were recorded in Paddington, St. George Hanover Square, Hampstead, Strand, Wandsworth, and Lewisham; and the highest rates in St. Luke, Shoreditch, Whitechapel, St. George-in-the-East, Limehouse, Mile End Old Town, and Poplar. Only 2 fatal cases of small-pox were registered in London during the month under notice, the corrected average in the corresponding periods of the ten preceding years being 14; of these 2 fatal cases, 1 belonged to Hammersmith and 1 to St. Giles sanitary areas. The 262 deaths referred to measles were 23 below the corrected average; among the various sanitary areas this disease showed the highest proportional fatality in St. Luke, Whitechapel, St. George-in-the-East, Limehouse, Mile End Old Town, and Poplar. The 58 fatal cases of scarlet fever were 10 below the corrected average number; this disease showed the highest proportional fatality in Hackney, Clerkenwell, St. George-in-the-East, and Battersea sanitary areas. The 151 deaths referred to diphtheria exceeded by 37 the corrected average number; among the various sanitary areas this disease showed the highest proportional fatality in Fulham, Bethnal Green, St. George-in-the-East, Mile End Old Town, Poplar, Bermondsey, and Rotherhithe. The 88 fatal cases of whooping-cough were less than half the corrected average number; this disease showed the highest proportional fatality in St. Giles, St. Luke, St. George Southwark, and Newington sanitary areas. The 24 deaths referred to enteric fever were 15 below the corrected average number; except in Plumstead, there was no marked excess of "fever" mortality in any of the sanitary areas during the month under notice. The 173 fatal cases of diarrhœa were 9 above the corrected average number. In conclusion, it may be stated that the mortality in London during June from these principal zymotic diseases was rather more than 12 per cent. below the average.

Infant mortality in London during June, measured by the proportion of deaths under one year of age to registered births, was equal to 123 per 1000, and was slightly below the average. Among the various sanitary areas the lowest rates of infant mortality were recorded in Marylebone, Stoke Newington, Rotherhithe, Wandsworth, Lewisham, and Lee; and the highest rates in St. Martin-in-the-Fields, Clerkenwell, St. Luke, Shoreditch, Limehouse, and St. George Southwark.

THE SERVICES.

MOVEMENTS OF THE MEDICAL STAFF.

SURGEON-MAJOR-GENERAL INKSON has proceeded to England on leave of absence, and the duties of Principal Medical Officer in Malta have been taken over by Brigade-Surgeon-Lieutenant-Colonel Lyons. Surgeon-Lieutenant Vaughan-Williams has been posted to Cork. Surgeon-Captain Hore has been transferred to York. Surgeon-Lieutenant C. M. Fleury, A.M.S., is ordered to York for duty in the North-Eastern District; he will return to Netley when his services are no longer necessary in that district. Surgeon-Lieutenant W. M. O'Connor, M.M.S., is attached to the Medical Division, and Surgeon-Lieutenant H. E. Mortis to the Surgical Division of the Royal Victoria Hospital.

INDIA AND THE INDIAN MEDICAL SERVICES.

Surgeon-Major S. C. Sarkies is appointed to act as Surgeon, Third District, Madras, during the absence of Brigade-Surgeon-Lieutenant-Colonel H. J. Hazlett, on leave. Surgeon-Captain W. Molesworth is appointed to act as Additional Medical Officer, General Hospital, Madras, during the employment of Surgeon-Captain R. Robertson on other duty. Surgeon-Major J. Smyth is appointed to act as Fort Surgeon with Port and Marine duties, during the absence of Surgeon-Lieutenant-Colonel H. Allison on leave. Surgeon-Captain G. G. Giffard is appointed to act as Resident Medical Officer, General Hospital, during the employment of Surgeon-Major J. Smyth on other duty. The following appointments

and transfers are ordered, consequent on the departure on leave of Surgeon-Lieutenant-Colonel O. Baker:—Surgeon-Captain T. W. Gibbard to hold Collateral Charge of the Civil Surgeoncy at Shwebo; Surgeon-Captain K. Prasad to be Civil Surgeon of the Toungoo District; Surgeon-Captain A. R. P. Russell to be Superintendent of the Rangoon Central Gaol; and Surgeon-Major R. E. S. Davis to be Junior Civil Surgeon and Superintendent of the Lunatic Asylum, Rangoon. The services of Surgeon-Major E. F. H. Dobson (Bengal) are replaced at the disposal of the Chief Commissioner of Assam, from date on which he was relieved of his duties as Officiating Protector of Emigrants and Superintendent of Emigration, Calcutta.

NAVAL MEDICAL SERVICE.

The following appointments are notified:—Fleet-Surgeon Horace E. F. Cross to the *President* (additional) for temporary service at the Royal Naval rendezvous. Surgeons: C. S. Facey to the *Widgeon;* Bernard Ley to the *Resolution;* S. H. M'Sherry to the *Wallaroo*, and E. Cuffey to the Haulbowline Hospital.

VOLUNTEER CORPS.

Rifle: 1st Volunteer Battalion the Buffs (East Kent Regiment): Surgeon-Major C. G. M. Lewis to be Surgeon-Lieutenant-Colonel; to resign his commission; to be granted permission to retain his rank, and to continue to wear the uniform of the Battalion on his retirement. 5th (Irish) Volunteer Battalion the King's (Liverpool Regiment): Surgeon-Lieutenant J. T. Walsh resigns his commission. 6th Volunteer Battalion the King's (Liverpool Regiment): Michael Joseph Mahony, M.B., to be Surgeon-Lieutenant. 1st (Exeter and South Devon) Volunteer Battalion the Devonshire Regiment: Surgeon-Lieutenant E. L. Puddicombe resigns his commission. 1st Volunteer Battalion the Duke of Wellington's (West Riding Regiment): Surgeon-Major T. M. Dolan, M.D., to be Surgeon-Lieutenant-Colonel. 2nd Volunteer Battalion the Gordon Highlanders: Surgeon-Captain W. S. Cheyne, M.B., to be Surgeon-Major.

VENEREAL DISEASES IN THE ARMY OF INDIA.

The *Times of India* of the 14th ult. contains a correspondence in connexion with a quotation from THE LANCET on this subject in which this journal is alluded to as a "materialistic" organ. Well, it certainly strikes us as very material to the health and efficiency of our troops in India that unfortunate women when suffering from a highly contagious disease should not be allowed to follow their calling whilst in that condition, and we are glad to notice that the *Times of India*, in some very sensible and sarcastic remarks on the subject, takes the same view. Whether the amount of disease from this cause has been unduly raised or not by the inclusion of re-admissions among the admissions is a statistical matter that can be easily set right, but it does not seem to us to materially affect the question at issue. We repeat that it appears a monstrous absurdity to safeguard the troops against such diseases as cholera, small-pox, and infectious fevers by insisting on the prompt removal of the sufferers from them from cantonments and camps while we allow unfortunate women affected with venereal disease to carry on a calling that is highly dangerous to other people. It is surely a matter of common sense and common prudence to insist that a woman known to be suffering from this class of disease should either go to a hospital where she can be treated and cured or quit the cantonment. As it is at present, several soldiers may independently attribute the source of their infection to a common cause which we are powerless to treat or remove. This may be a very materialistic view to take of the subject, but it nevertheless seems to our medical apprehensions a very natural, commonsense way of looking at it. Whether, judged by past experience, the Lock Hospital system in India failed to accomplish all that was expected of it or not has little or no bearing on this point.

MEDICAL AND SANITARY ARRANGEMENTS IN MOUNTAIN WARFARE IN INDIA.

In a lecture recently delivered at the Royal United Service Institution by Major F. C. Carter, Royal Berkshire Regiment, on Mountain Warfare in India, special reference was made to the medical and sanitary arrangements for such expeditions. The lecturer said that however complete may be the organisation, equipment, and *morale* of our troops, they will avail little if the medical and sanitary arrangements are faulty. A great tendency to be avoided is the "cutting down" of the medical staff and the number of field hospitals required for hill campaigns, a tendency that has no doubt arisen partly from motives of economy and partly from the healthy state the troops have generally been in during our late frontier wars. The danger of such false economy was, however, clearly shown with the Isazai Field Force of 1892, when, owing to fever, sunstroke, and cholera following on an attempt to reduce the hospital establishment, the resources of the medical department with the force were severely taxed. Another medical question of some importance is the carrying of wounded men. The stretchers now in use are by no means suitable for steep hillsides. In mountain warfare, owing to the nature of the hills, the density of the jungle, or the ever-vigilant attitude of our foes, it is necessary for our camps and bivouacs to be confined within far closer limits than when fighting in the plains, and this alone necessitates a far more careful inspection of *minutiæ sanitatis* than is otherwise necessary. The necessity of ordinary precautions does not appeal to a native.

THE HEALTH OF THE FRENCH TROOPS IN MADAGASCAR.

It is not easy to form a correct estimate of the sanitary condition of the French force in Madagascar from the various reports that have been published on the subject. It seems, however, according to those received by the Minister for War in Paris, and published in the *Standard* of the 6th inst., that about one-fifteenth of the troops are in hospital, and about one-thirtieth, including the coolies employed with the French expeditionary force, are on the sick list, but not in hospital. The diurnal variations of temperature in Madagascar have to be taken into account—the nights are said to be very cool. From our experience in India and Afghanistan we know that much sickness is to be expected under such circumstances among the coolies and native followers with a force, and we are not therefore surprised to learn that a demand has been made on the French War Minister to send out woollen jerseys for their use. As might have been expected, the resistance offered to the French forces is comparatively small and easily overcome. A sanatorium has been erected at Nossi Bé, which when completed will accommodate 500 patients. It is occupied at present by about 200 sick soldiers from Majunga and elsewhere.

MILITIA MEDICAL STAFF CORPS.

The Hants Companies of the Militia Medical Staff Corps are encamped at Netley between the Royal Victoria Hospital and the lunatic asylum. The non-commissioned officers and men commenced their duties at the Royal Victoria Hospital on Monday, the 8th inst. They are employed as camp guards, cooks, messengers, and on fatigues, dispensary, packstore, bathroom and ward duties. The companies parade daily in the morning with the Medical Staff Corps. The drills take place after 3 P.M. One non-commissioned officer and six men are furnished daily for night duty in the hospital.

THE VOLUNTEER MEDICAL STAFF.

His Royal Highness the Duke of Cambridge has accepted the invitation of the officers of Volunteer Medical Staff to dine with them at the King's Hall, Holborn Restaurant, on Wednesday, July 31st, at 7 P.M. Major-Generals Sir Francis Grenfell, G.C.M.G., K.C.B., Inspector-General for Auxiliary Forces, and Lord Methuen, C.B., C.M.G., Commanding the Home District, will be present on the occasion, when the chair will be taken by Surgeon-Lieutenant-Colonel W. R. Smith, M.D., F.R.S. Edin., 3rd V.B. the Queen's Own Royal West Kent Regiment.

WAR OFFICE POLICY OF THE NEW GOVERNMENT.

The army is waiting for a declaration of policy on the part of the new Government. As at present arranged, the Duke of Cambridge will resign his post in October, and all branches of the service are anxious to know who is to be his successor in the newly constructed appointment. Lord Wolseley, Lord Roberts, Sir Redvers Buller, and the Duke of Connaught have all been named, but nothing is definitely known as yet. It would probably not suit the Duke of Connaught to take the appointment (for five years) at the present time.

THE NAVAL MEDICAL SUPPLEMENTAL FUND.

At the quarterly meeting of the directors of the Naval Medical Supplemental Fund, held on the 9th inst, Inspector-General T. Russel Pickthorn in the chair, the sum of £74 was distributed among the several applicants.

On Thursday afternoon last Captain Younghusband, in reading a paper upon the Chitral Campaign at the Royal

United Service Institution, drew special attention to the gallant conduct of Surgeon-Captain Whitchurch in bringing in Captain Baird when mortally wounded. We hope to learn shortly that this "gallant civilian," to adopt the Commander-in-Chief's pleasantry—has received the honourable distinction of the Victoria Cross.

Surgeon-General William Campbell Maclean, M.D., C.B., Madras Retired List, has been appointed Honorary Surgeon to the Queen in the room of Inspector-General of Hospitals J. H. Orr, M.D., C.B., deceased.

Correspondence.

"Audi alteram partem."

"IS METEOROLOGY A SCIENCE?"

To the Editors of THE LANCET.

SIRS,—Will Dr. Wilks please tell us what a "science" is? Some years ago there was a discussion whether medicine and surgery are sciences. I have for long been groping for a criterion, but in vain. It seems to be mainly a question of words, yet beneath the "counters" are conceptions of no small importance. Unless we recognise as a science a defined region of knowledge to which observation and inference are specially applied I see no foothold. But this would make meteorology as much a science as astronomy, and chemistry a more definite science even than astronomy. It would be easy to narrow the definition until it included only mathematics and psychology? It seems to me a mistake to mix up with the question that of "art." Every science has its application, and the extent of this has no relation to the features that determine the recognition of a "science." Surely, however, we may go too far. As we descend from the heights of "pure science," to which most of us look up with awe, we come to lower strata, with less distinction, to which, however, the adjective "scientific" is applicable, even with usefulness. And so we pass down to mere "knowledge." I write this in the hope of help from Dr. Wilks' clear thought.

I remain, Sirs, yours faithfully,

Queen Anne-street, Cavendish-square, W. W. R. GOWERS.

FRACTURE OF THE LOWER END OF THE FEMUR.

To the Editors of THE LANCET.

SIRS,—In your report of the last clinical meeting of the West London Medico-Chirurgical Society you give prominence to the speakers who advocated treating the T-fractures (especially of the humerus) by the immediate application of plaster of Paris splints; in your abstract of the discussion that followed my cases you mention that Mr. Bidwell also recommended "that T-shaped fractures of the lower end of the humerus should be treated by a well-fitting plaster of Paris splint, which ought to be kept on for a month, and if the fracture had been kept completely immobilised the movements of the elbow-joint quickly returned without much trouble"—*vide* THE LANCET, June 29th. This is so contrary, I think, to what is unfortunately most usually the result of this description of accident, and also to the teaching of classic literature on the subject, that I would be glad to obtain the opinion of some of your surgical readers with large experience in this matter. In Mr. Christopher Heath's useful Surgical Dictionary, at page 746, when referring to T-fractures of the elbow-joint, Mr. Howard Marsh writes: "They are apt, particularly those which directly involve the joint, to be followed by impairment of movement in the limb, a fact of which it is best that parents at the onset should be informed." And this appears to me a prudent and timely caution; but if Mr. Bidwell's experience is usual it is both unnecessary and inadvisable, for it might tend to give needless anxiety to parents or guardians, as well as, perhaps, to tend to less careful attention and watchfulness of the surgeon.

I am, Sirs, your obedient servant,

July 8th, 1895. FREDERICK H. ALDERSON, M.D.

"THE POSITION OF THE MEMBERS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND."

To the Editors of THE LANCET.

SIRS,—Your leading article on the question of the position of Members of the College of Surgeons in respect of their College is singularly opportune. There can, I think, be little question that the policy pursued by the great corporations with reference to the great mass of the profession has not been well advised, and it is doubtful whether it would even have been allowed in any profession but our own. When I say the policy, I mean the policy of denying to the mass of the profession, corporate existence, and I condemn this policy because the success of any body of citizens must depend upon the individuals composing that body; it must depend upon their efforts and not upon the action of the comparatively few who have arrived at coveted positions. The important question before the profession really is, What is the best method of quickening interest in affairs connected with the profession? At the present time the attitude assumed with regard to those who take an interest in professional politics is that they are the agitators, the riff-raff, the trades unionists of the profession. Now anyone who has in anyway studied the trades unions questions must arrive at the conclusion that the working men of this country, notwithstanding grave faults made in the working and management of those unions, have achieved a gigantic success, not only with reference to themselves, but also with reference to the community. One has only to compare labour conditions in Continental countries with those in our own to appreciate the fact that the working men of this country, by adhering to the principles of coöperation, friendly societies, and trades unions, have saved this country from a large amount of suffering and trouble. The best method, then, for advancing the interests of our profession must be one, I believe, which will induce each individual member to become alive to his professional responsibilities and to feel them. There is an association ready formed which has in it all the elements of success. I refer to the British Medical Association, which is representative and which is democratic in constitution. As yet this association has not become conscious of its latent power and force. In a few weeks it will be called upon to decide upon the following resolution, drawn up, after careful consideration, by a number of representative practitioners: "That it is to the interest of the public and of the medical profession that the Council of the British Medical Association should take power and authority to protect both the individual and the collective interests of the medical profession, and the Council be requested to take such steps as may be necessary to enable it to actively undertake these duties." I think that if members of the profession will come forward and help to carry this resolution they will be doing something much more practical than merely hammering at the old corporations. It appears to be much better policy to leave these close boroughs alone, and to convert the British Medical Association into a body powerful enough to cope with them. When the latter is done little fear need be felt as to the result. The association has the numbers besides possessing practically an unlimited field for raising funds. What would £1 per head alone mean for the campaign chest? The working men of this country subscribe very much more, in proportion to their means, to their own unions, and I do not believe for one instant that the members of our own profession would be unwilling to subscribe less in proportion to their earnings, supposing they felt that something substantial was being done for their interests.

I am, Sirs, your obedient servant,

Hatfield, July 7th, 1895. LOVELL DRAGE.

"THE REMUNERATION OF MEDICAL OFFICERS TO PROVIDENT ASSOCIATIONS, CLUBS, ETC."

To the Editors of THE LANCET.

SIRS,—Mr. W. G. Dickinson, in THE LANCET of July 6th, declines to accept the figures I used in my letter of June 22nd. I will accept his. In his illustration a club contributes £200 a year, subscribed by 1000 members, for the maintenance of a medical officer who may expect to have to pay 9000 visits in a year. That is 5·3*d* per visit. Ignoring the home consultations, the value of the certificates, and the fact that the officer has to

find medicines out of this, as well as furnish, warm, and light a waiting-room and surgery, he has, moreover, to provide his own conveyance or walk. Is there a cabman in all London who would take a medical man on a round of twenty-five visits for half-a-guinea? Even accepting Mr. Dickinson's figures we find that a club officer's pay is less than that of a cabman! The amount of benevolent work done, over and above all this practically unpaid work of parish and club, is perhaps shown by the following calculation. Take the number of patients seen by the charities included in the Hospital Sunday Fund appeal at 1,500,000. At one shilling each this is worth £75,000. Take the profession as being in the proportion of 1 to 1000 of the total population, and it follows that before the public subscribe equally to the relief of the indigent sick they must contribute, not £40,000, but £75,000,000!—I am, Sirs, yours faithfully,

July, 1895. E. PAGET THURSTAN.

"THE MISUSE OF HOSPITALS."

To the Editors of THE LANCET.

SIRS,—The statistics published in the special supplement of the *Hospital*, showing that during 1894 no fewer than 1,300,650 separate out-patients were treated in the metropolitan hospitals, may well excite comment and surprise. There is good ground to doubt whether entirely satisfactory means exist at the different hospitals for separating the first visits from the second and subsequent visits of the same out-patients, in which case the number of these out-patients is probably to some extent over-stated in the *Hospital* statistics. The independent figures which were published in THE LANCET Hospital Sunday Fund Supplement, however, to a considerable extent corroborate them, and it will be useful to compare some of the figures in the two returns. THE LANCET figures purport to show the number of out-patients' visits. Thus, in twenty-four of the principal general hospitals 1,565,978 out-patients' visits were recorded during 1894, whereas the *Hospital* in the same twenty-four hospitals reports 622,399 distinct patients under treatment. Assuming that both these returns are approximately correct, the figures show that each patient averaged 2·5 visits during the year. Without hazarding any opinion as to the probable degree of accuracy of these two sets of returns, their comparison shows, at any rate, that the *Hospital's* figures cannot be explained away by the suggestion of blunder made by your correspondent, Mr. D. Biddle, although he correctly points out that a considerable number of the institutions draw both in-patients and out-patients from a far larger area than that of London proper. The editor of the *Hospital* asserts that the only known source of error in his figures is "the possibility that in some cases the same patient may have attended at more than one hospital during the year." It is impossible to doubt that this source of error is more than a possibility, but, unfortunately, there are no means for gauging the extent of the error. It should, however, be borne in mind that of the 1,300,650 distinct out-patients recorded in his tables, 622,399 were stated to have been treated in the larger general hospitals, 429 894 in special and in smaller general hospitals, and 248,357 in dispensaries. Nothing is more certain than that many of the out-patients, who were treated at the dispensaries and at the dental, ophthalmic, and other special hospitals, also repaired during the year to the out-patient department of one or other of the general hospitals.

The figures to which I have referred are doubtlessly startling, and, after due allowance for a certain amount of exaggeration from causes referred to above, afford abundant evidence of the misuse of hospitals. We must all entirely agree with Mr. Biddle in denouncing the recent enormous extension of hospital accommodation, more especially in the out-patient department, which not only tends to pauperise a rapidly increasing proportion of the community, but severely over-taxes the resources of institutions many of which are on the brink of bankruptcy.

I am, Sirs, yours faithfully,

July 10th, 1895. F.S.S.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a meeting of the Fellows on July 4th Mr. John Lentaigne, F.R.C.S., surgeon to the Mater Misericordiæ Hospital, was unanimously elected a member of the Council of the College in the room of Sir George Porter, Bart., deceased.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Hospital Saturday Fund.

THE twenty-first annual collection just concluded has realised the handsome sum of £12 500, including a donation of £223 15*s.* 4*d.* from Mr. J. C. Holder. In the disposition of this large amount it was stated at the meeting that £10 000 was distributed among the medical charities of the city, £2000 was transferred to the credit of the convalescent homes, £137 10*s.* was appropriated under the terms of the agreemant with the District Nursing Society, and £150 was placed at the disposal of the applications subcommittee, among other objects, to enable them to provide surgical appliances and instruments and artificial limbs. The expenditure amounted to 4 0 per cent. of the amount received. The report of the Tyn y Coed stated that during the year 645 patients had been admitted; the average length of stay was 17·53 days; the cost per patient, including wages and all expenses of administration, was 15*s.* per visitor per week. The sum expended in railway fares was over £100 a year. Altogether the outlook was very promising, and the success of the movement in its various directions undoubted.

Poisoning by Phenacetin.

A manufacturing chemist, aged fifty-four, was subject to attacks of headache. Recently he called at a shop for a dose of phenacetin, as this drug had often given him relief. On taking the dose given to him by the chemist he noticed that it had a bitter taste. He became stiff, convulsed, and in pain; a medical man was sent for who advised his removal to the hospital, and on his way there he died. The preliminary inquiry was adjourned in order that an examination might be made of the contents of the bottle from which the powder was taken. Any expression of opinion at the present time would be unjustified.

Steam Trams.

Periodically the residents on the lines of the steam trams write to the papers complaining of the vile effluvia and the dreadful noise caused by the engines. The hot weather intensifies these evils; but, apart from this, the grievance is a real one, and sadly interferes with the comfort of those whose lives are spent along the route of these unwieldy, odious monsters.

The New Small-pox Hospital.

The first patient was admitted to the new building on the first day of the present month. Up to that day there had been no case of small-pox in the city for ten weeks. In this instance the case was a mild one, but the officers of the Health Committee have not been able to trace the source from which it started. The health of the city continues to be good. The death-rates for the weeks ending June 22nd and 29th were only 16·9 and 16·1 respectively, and the zymotic rates were 1·6 and 1·9. During the latter week there were no deaths from measles or from typhoid fever. There were but two each from scarlet fever and diphtheria, but there were ten from diarrhœa, no doubt due to the effect of the hot weather upon children.

The Kyrle Society.

Health and happiness is the object of this society. The annual meeting of June 28th showed how largely the various influences of the society contributed to promote the interest and occupations of the young. An energetic executive and a willing staff work ungrudgingly to realise the object of those who devote time and money to the cause.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Hospital Saturday and Sunday Fund.

A MEETING of delegates from firms subscribing annually to this Fund in Manchester and Salford and surrounding towns was held on Tuesday last in the Lord Mayor's Parlour. It was called to consider a proposal for the formation of a Workman's Auxiliary Society to coöperate with the general committee of the Fund in the arrangements for collections for the various hospital and charities in Manchester and Salford. The Mayor of Salford presided in the absence of

the Lord Mayor. Mr. F. Scott, the secretary, explained the scheme in detail, saying that the committee had long felt that the amount coming from the working classes had very inadequately represented their powers of contributing to these charities, which were so great a boon to them. Certainly these towns do not stand well when compared with Birmingham, which collected this year no less than £13,000, or with Glasgow and Leeds, the former of which contributed rather more and the latter rather less than £6000, while Manchester and Salford, with a population of 750,000, only raised £4000. The proposed society will provide a much more efficient organisation than has hitherto existed, and will be composed as follows: In the case of firms contributing to the Hospital Sunday collections, the workpeople should appoint a delegate, and these delegates should form the Society. The Society should then appoint a general committee, which should select, say, a dozen representatives to serve on the committee of the hospital fund, and help that committee to distribute the funds. The general committee of the Workman's Society would be further divided into smaller executive committees, whose duty it should be to look after the collectors, who should, as far as possible, consist of the delegates sent by the workpeople. The delegates would undertake the duty of collecting the contributions of the workpeople in the respective works. It seems that last year the total deficit of the various local charities was £14,500. If this cannot be reduced curtailment of "the beneficent work of the hospitals" must follow. In appealing to the working classes of Manchester and Salford Mr. Scott said he was only appealing to their self-reliance and independence. The suggested scheme was warmly approved, and a number of proposals from the delegates present were submitted to the meeting. One very practical suggestion was to change the date of the annual collection from February to Midsummer, as it was thought the poorer classes would then be able to contribute more freely than in winter when money was more needed.

Potato Pie at the Salford Workhouse.

The dietary at the above institution has from time to time been commented on more or less adversely in the local press and in your columns, and although the medical officer does not seem to have drawn attention to the negative virtues of the tea, he has something positive to say about the potato pie. The minutes of the house committee contain the following report by him: "July 2nd, 1895. The pastry of the potato pie given to the children is quite unfit for them, as it is doughy and indigestible. The children refuse to eat it in the sheds. The pastry is from three to four inches thick. Potato pie for children aged from three to five years is not proper food." Few will dispute the soundness of this opinion, except, perhaps, the Salford guardians. However, the committee very considerately recommended "that the pies be better cooked, and the crust made thinner, so that it can be properly baked." Lancashire mouths are sometimes said to have a character of their own, and it would be interesting to observe the effect of a course or two of pastry four inches thick on the human face divine in the early and plastic period. It is satisfactory to see that the salary of the medical officer, Dr. A. C. Clarke, is to be raised from £100 to £130 per annum, notwithstanding his report on the qualities of the potato pie.

Manchester Medical Staff Corps.

The annual inspection of the 4th (Manchester) Division Volunteer Medical Staff Corps took place on the 6th inst. It was established in 1887, its original members being ten medical students, but its progress has been remarkably rapid and the full complement has been exceeded for several years. Surgeon-Major W. H. B. Crockwell, V.D., was in command of the corps, and the other officers on duty were Surgeon-Captains W. Coates, I. J. Renshaw, J. J. Kent Fairclough and H. B. Mann, Captain B. R. Howell, Quartermaster Dickinson, and the Rev. Canon J. D. Kelly, chaplain. About 250 of all ranks paraded, exclusive of 36 band and buglers. Surgeon-Colonel Muir, principal medical officer of the north-western district, from the Chester depôt, was the inspecting officer, and the visitors included Surgeon-Lieutenant-Colonel Cayzer of the 6th Lancashire Artillery. The members of the corps were in heavy marching order, carrying the full Slade-Wallace equipment which is in use in the army, but of which they are the only possessors among the Lancashire volunteers. After marching past in very good style a considerable time was passed in the exercise of the companies under their own officers in drills specially connected with medical staff work. No. 2 company had stretcher drill, whilst No. 1 company formed a collecting station, sending out parties to deal with and bring in wounded men from the field. Forty men of the Royal Welsh Fusiliers played the part of the wounded. Colonel Muir, in addressing the members of the corps, said the turn-out was exceedingly creditable to them, and he thought he could tell from the way in which they had performed their duty that day that they all took an interest in their work. It showed that they had been well trained, and great credit was due to their officers and instructors.

Vagrancy.

The Chorlton board of guardians at their last meeting resolved to send a petition to the Local Government Board praying them to institute an inquiry into the present mode of dealing with the casual poor, and into the best way of dealing generally with the great increase of vagrancy. The board state that there is a very prevalent opinion among Poor-law guardians that such an inquiry would lead to some more satisfactory scheme for placing casual relief on a better basis, both as regards the relief administered, the classification of the recipients, and the reimbursement of the cost, and they pray the Board to institute such an inquiry without delay, and adopt such other measures in this behalf as may seem to them to be either expedient or necessary.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

The Medical Officer of Health of Edinburgh.

AT the last meeting of the public health committee of the town council of Edinburgh the convener congratulated Sir H. D. Littlejohn on the honour which the Crown had conferred upon him. Sir Henry Littlejohn, in thanking the committee, said the honour was due to his being medical officer of health for the city.

The Edinburgh Obstetrical Society and Midwives.

An afternoon meeting of the Edinburgh Obstetrical Society is to be held on Wednesday, July 10th, when there is to be a discussion on "The condition of midwives in Scotland, with special reference to the question of registration. Should midwives be registered in Scotland?" It is expected that the country Fellows will take a prominent part in the discussion. The raising of this question in Scotland has been the outcome of the interest manifested in it on the other side of the Border. The question in Scotland does not appear to be so acute as in England; in fact, little or nothing was heard of it until the question of registration was raised. After the discussion the Fellows are to dine together, and it has been proposed to make Professor Simpson the guest of the evening, as the twenty-fifth anniversary of his appointment to the chair of Midwifery in the University occurs near this date.

The Extra-mural School of Medicine in Edinburgh and the Royal Colleges.

For some time past a movement has been in the air, if not exactly on foot, to bring the Royal Colleges of Physicians and of Surgeons in Edinburgh into closer relations with the extra-mural school than has been the case in recent years. Proposals have been made to the Colleges, and these are now being discussed and decided on by them. It is understood that the University is hostile to any arrangement which would more closely identify the extra-mural school with the Royal Colleges than it is at present, presumably because they fear that anything which might add to the prestige or status of the school might be hurtful to the University. If the view of the University continues to be expressed as it has been, it will probably lead to some scheme being adopted which, without this opposition, would have little chance of being accepted by the Colleges.

The Proposed New City Hospital for Edinburgh.

As was mentioned in THE LANCET some time ago, alternate sites for a new city hospital have been suggested to the town council. One of these—namely, that at Craiglockhart—has been visited by the Lord Provost and some of the town council, and a suitable site provisionally approved of. The ground extends to nineteen acres, and is situated near the Craiglockhart Poorhouse. The matter will come up before the town council at its next meeting.

Complimentary Dinner to Professor Simpson, Edinburgh.

Last week Professor Simpson was entertained to dinner by a number of his old assistants, it being the semi-jubilee of his appointment to the chair of Midwifery in the University. Dr. Halliday Croom occupied the chair, and there were a number of guests present.

St. Andrews University and Dundee.

Principal Peterson, in his closing address to the students of University College, Dundee, referred at length to the litigation as a result of which the agreement between the College and the University of St. Andrews has been dissolved. He denied that those at whose instigation this had been brought about represented the genuine opinion of the University, and denounced their action as based upon a desire to maintain a monopoly of teaching. In his view union would be advantageous to both institutions, and he would have no hesitation in leaving the question for settlement in the hands of a commission duly appointed for the purpose. The Dundee authorities were quite ready to discuss any practicable scheme and to give effect to any reasonable demand that might be made upon them. The Principal acknowledged the encouragement and sympathy offered to Dundee in the present trying circumstances by the Universities of Edinburgh and Glasgow, both of which have agreed to recognise the medical curriculum at Dundee as qualifying for graduation. This will be the last appearance of Mr. Peterson as Principal of Dundee College, as he has accepted the Principalship of the M'Gill College, Montreal.

St. Mungo's College, Glasgow.

The closing address of the present session of the Medico-Chirurgical Society was delivered by Dr. D. C. McVail, who took for his subject the Life and Work of the Doctor. The lecturer discussed the contrasts afforded by a comparison of the work of the merchant or the manufacturer and that of the medical practitioner, pointing out the self-sacrifice demanded of the latter if he would attain a high ideal of professional duty. He warned the students against the danger of becoming mere students and practitioners of the art of pleasing, and impressed upon them the grave responsibilities, both to their patients and the public generally, which they would undertake when they entered on the practice of their profession. A cordial vote of thanks was awarded to Dr. McVail for his address.

St. Andrews Ambulance Association.

At the annual meeting of the association the executive committee reported that the number of pupils trained during the year had been 6066 and there had been 3150 calls upon the waggons of the association. The total income for the year was £983 0*s.* 5*d.* and the expenditure £994 11*s* 2*d.* The report also stated that a third edition, completing the fifteenth thousand, of the "Ambulance Handbook" by Dr. George T. Beatson is almost exhausted, and that the sale of Dr. Brodie's manual on stretcher-drill and exercise had also been large. Since the foundation of the association in 1892 a total of 21,126 patients have been conveyed in the society's waggons.

The Sanitary Association of Scotland.

At a recent meeting of the Board of Examiners certificates of competency in sanitary science were granted to ten out of eighteen candidates. The examiners were Dr. J. C. McVail, Dr. Eben. Duncan, Mr. Peter Fyfe, and Mr. G. A. D. Mackay.

Presentation to Dr. George Halket, Glasgow.

The members of the Royal Thistle Lodge of the Order of Foresters have presented their medical officer, Dr. George Halket, with a bookcase and aneroid barometer as a token of their esteem and respect. The presentation also included a gold ring set with rubies for Mrs. Halket.

The General Election.

The name of Mr. Robertson Watson, the lecturer on chemistry in Anderson's College, is mentioned as a probable candidate, representing the Labour interest, for the Bridgeton Division of Glasgow. This is the division of the city represented in the last Parliament by Sir George Trevelyan. Professor Murdoch Cameron is, as at a former election, appearing on the platform as an energetic supporter of Sir Charles Cameron, the Gladstonian candidate for the Central Division. There is no rumour of opposition to Mr. James A. Campbell, LL.D. who has for many years represented the Universities of Glasgow and Aberdeen. Mr. Campbell is a brother of Sir Henry Campbell-Bannerman, but sits on the opposite side of the House.

Glasgow Royal Infirmary.

Dr. Charles Workman has been appointed pathologist in place of Dr. Lindsay Steven, who has been promoted to be physician to the infirmary. Dr. Workman has for some years acted as assistant to the pathologist. He is a graduate of the Queen's University, Ireland.—Dr. Luke has been appointed one of the surgeons to the out-patient department of the infirmary.

Anderson's College Medical School Glasgow.

The summer session at this school closed on the 5th inst. It has proved the most successful summer session in the history of the institution, upwards of 175 students having been in attendance, a number far in advance of any previous year. This, following on such a successful winter session as that of 1894-95, augurs well for the future of this school, which seems now to have entered upon a career of renewed usefulness and prosperity.

University of Aberdeen—the Quatercentenary Celebration.

The modified programme proposes that the celebrations should extend from Tuesday, Oct. 22nd next, to Friday, Oct. 25th, inclusive. On the Tuesday from 8 to 11 it is intended to have a grand reception of delegates. All the halls and laboratories of Marischal College will be open for inspection, and there will be a musical performance in the Mitchell Hall. This splendid hall will be inaugurated on Wednesday, the 23rd. The clock will be started at 11 A.M., and all the tower bells in the city will chime their best. The inauguration of the Students' Union will follow. The Students' representative council will present an address to Dr. Charles Mitchell, of Jesmond Towers, Newcastle, the donor of the union, who will afterwards entertain a number of them and other gentlemen at luncheon. On Thursday, at noon, Dr. Mitchell will be presented with the freedom of the city, and, in accordance with ancient custom, will be expected to deliver an address. A distinguished company will afterwards be entertained at luncheon by Lord Provost Stewart, who is himself a graduate (in arts) of the university. At 4 P.M. on the same day the Marquis of Huntly will deliver his rectorial address in the Graduation Hall, and a great torchlight procession of students will start at 8.30. On Friday a commemorative medal and address on behalf of the university authorities will be presented to Dr. Mitchell. At the same time the honorary degrees of D.D. and LL.D. will be conferred on a number of gentlemen. A service *in memoriam* of Bishop Elphinstone, founder of the university, will be held in King's College chapel, and the Duke of Richmond and Gordon (the Chancellor of the University), the Marquis of Huntly (Lord Rector), Dr. Mitchell, and others will be entertained at dinner by the University Court and Senatus. In view of these ceremonials the builders are pushing on the building operations at the north wing. The Mitchell Hall will be ready in good time. The Mitchell Tower (260 feet high) is finished. The only fatal accident in connexion with its erection occurred in the removal of the scaffolding, when a young man was killed by a fall of about 75 feet. *Alumni* abroad have not forgotten their *alma mater*. Further contributions (700 rupees in all) have just been sent from India through Dr. King, Botanic Gardens, Calcutta, including subscriptions from Surgeon-Captain Roberts, Bengal Medical Service; Surgeon-Colonel G. Thompson, Bengal Medical Service; Surgeon-Captain W. H. Gray, Bengal Medical Service; and Surgeon-Lieutenant-Colonel Hugh Johnston, Bengal Medical Service. The Liberal Government declined to give any further contributions from Imperial funds to the extension scheme. Should the Unionists succeed a further application will be made.

Forfarshire Medical Association.

The thirty-seventh annual general meeting of the Forfarshire Medical Association was held in the County Hotel, Forfar, on July 4th, Mr. Cable, President, being in the chair. The members present included Drs. J. W. Miller, Duncan, Stalker, Johnstone, Templeman, and Peter Campbell (Dundee), Drs. Alexander, McLagan-Wedderburn, Hunter, and M'Alister (Forfar), and Mr. Anderson Peters (Arbroath). Apologies for absence were intimated from Drs. A. M. Buchanan and Samson Gemmel (Glasgow), Surgeon Sharples, R.N., Dr. Urquhart (Perth) and from the President and Secretary of the Fifeshire Medical Association. The

minutes of the last meeting having been read and approved, the secretary then read the financial report, which showed the association to be in a satisfactory condition. The office-bearers for the ensuing year were elected as follows: President, Dr. Adam (Brechin); vice-presidents, Dr. Johnstone (Dundee) and Dr. Hunter (Forfar); council, Drs. J. W. Miller, Sinclair, Buist, Mackie Whyte, Mackay, and Mr. Steele Moon; secretary, Dr. Peter Campbell; treasurer, Dr. McGillivray; local secretaries, Dr. Key (Montrose) and Mr. Cable (Forfar), Dr. Laing (Arbroath) and Dr. Adam (Brechin). On the motion of Dr. Templeman, seconded by Dr. McLagan-Wedderburn, it was agreed that the usual donation of three guineas be handed over to the British Medical Benevolent Fund. The President afterwards delivered an address on Micro-organisms and Disease, for which he was awarded the cordial thanks of the meeting. It was arranged that the next meeting of the association should be held at Edzell.

July 9th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Irish Medical Honours.

WE have had pleasure in hearing that his Excellency Lord Houghton, on retiring from the post of Lord-Lieutenant of Ireland, has conferred the honour of Knighthood upon Dr. Christopher Nixon and Mr. Thornley Stoker, of Dublin. Dr. Nixon was Physician-in-Ordinary to the Lord-Lieutenant. He is senior physician to the Mater Misericordiæ Hospital, Professor of the Practice of Medicine at the Roman Catholic University of Dublin, and visiting physician to the Central Asylum at Dundrum. Mr. Stoker is President of the Royal College of Surgeons in Ireland, and M.D. of the Royal University of Ireland. He is surgeon to the Richmond Hospital, and is a Government inspector for Ireland under the Vivisection Act. Sir Philip Smyly, M.D., F.R.C.S.I., has been appointed Surgeon-in-Ordinary to the Queen in Ireland, in the room of Sir George Porter, Bart., lately deceased. Sir Philip Smyly is the representative of the Royal College of Surgeons in Ireland on the General Medical Council. He is also surgeon to the Meath Hospital and held the post of Surgeon-in-Ordinary to the Lord-Lieutenant from 1869 to 1892.

Trinity College, Dublin.

The board of Trinity College, acting on the advice of a committee of the professors in the School of Physic, has elected Dr. A. C. O'Sullivan, M.A., M.B., Professor of Pathology to the school.

Supposed Case of Poisoning in Larne.

A good deal of uneasiness and excitement occurred recently in Larne owing to the sudden death of a woman aged seventy on June 11th. She fell ill shortly after eating veal, and notwithstanding everything Dr. Killen (who gave it as his opinion that the disease was caused by the veal) did she died. At the inquest, on the suggestion of the coroner, the viscera were sent to Mr. J. F. W. Hodges, F.I.C., Government analyst, and an adjournment made until last week, when Mr. Hodges reported that he could not find mineral or animal poison, but that he had succeeded in extracting an alkaloidal body having almost all the characteristic reactions of ptomaines. The verdict was that she died from inflammation of the bowels and stomach following on the ingestion of veal, the said veal being at the time unfit for food. The jury added that they considered that the man who sold the veal did not know that it was diseased.

Belfast Lunatic Asylum.

At a meeting of governors of the Belfast Asylum held on July 8th the committee appointed on June 10th to consider the whole question of accommodation to be provided for in the asylum district reported that at present there were on asylum books 425 patients, while it was proposed to transfer 150 from the workhouse; that meant 575 to be provided for. Now the existing City Asylum will accommodate 400, Purdysburn House 80, while the estimated increase for seven years was 155. The committee recommended that a detached self-contained building to accommodate 250 chronic patients should be erected at Purdysburn, the building to be so arranged as to be capable of being hereafter adapted for 150 acute cases, and that competitive plans and estimates for such a building should be invited, and that the competing architects (restricted to the profession in Belfast) should submit complete plans and estimates for a large asylum capable of containing 600 patients, and that a conference should be held between the professional members of the Board of Control, its consulting architect, and the governors, to determine the site for the proposed buildings, and to discuss the subject of the proposed competition. The report was adopted with the substitution of "sketch" plan for "complete" plan. The report of the committee advising the new asylum to be lighted by electricity was passed.

Peculiar Committal to the Belfast Lunatic Asylum.

Dr. Merrick, resident medical superintendent of the asylum, reported to the governors at their meeting on June 8th a very peculiar case. It appears that a militiaman who had been ill some four months ago was sent to the asylum last week on a committal order signed by the military authorities. However, when the man was examined by Dr. Merrick and his colleagues he was found to be not insane; but as their order was to place the man under surveillance for a month they had no option but to do so. Dr. Merrick thought that the detention of the man was a grave interference with the liberty of the subject, but as he said, in reply to several inquiries, that the board had no power to interfere, the matter dropped.

The Summer Session, Belfast.

The present summer session will come to a conclusion at the hospital this week, and at Queen's College next week.

Extensive Poisoning in a Young Ladies' Boarding School: Seventy Inmates attacked, with two Deaths.

Laurel Hill Convent in Limerick is an educational institution of considerable repute in which Roman Catholic young ladies are trained by a community of nuns. Considerable consternation existed there last Wednesday, when it was found that nearly all the inmates were suddenly attacked by diarrhœa and vomiting. The services of Dr. M. Malone, physician to the convent, were requisitioned, and as he found that he had to deal promptly with seventy patients, all more or less seriously ill, he prudently called in the assistance of Mr. Humphrys, Dr. Graham, Mr. Shanahan, and Dr. Haran, but, despite all their exertions, two of the nuns succumbed. One died shortly before 12 o'clock on Friday night, and the other died on Monday morning. An inquest was held on Saturday to inquire into the circumstances attending the death of the former. The evidence showed that the nuns and young ladies dined at 12 o'clock on Wednesday, the dinner consisting of soup, roast mutton, cabbage, new potatoes, custard, and strawberries. There was afternoon tea at 4 o'clock, and at that meal nothing but bread-and-butter and tea were served. The deceased was the first attacked, and she complained at half-past five o'clock. All the others were invalided soon afterwards. The only members of the whole household who escaped were the reverend mother, who was confined to her room owing to ill-health, and the sister who attended her. Attention was naturally riveted on what those two ladies had or had not partaken of, and it was ascertained that the reverend mother had not eaten either the soup or the custard. The attending sister had not taken any of the custard, but she thinks she had had some of the soup. Apparently, then, the irritant poison, whatever it may have been, was in either the custard or the soup. Possibly, of course, the water, which was the only drink at dinner, or one of the articles at afternoon tea may have contained it. The evidence of the cook, who is herself one of the victims, was taken. She states that the roast mutton was quite good; the custard consisted of eggs, milk, cornflour, and sugar; the soup was made from beef and mutton, flavoured with young celery with all the green leaves attached; the kitchen utensils she used contained neither copper nor brass. It also transpired that Sir Charles Cameron of Dublin found nothing deleterious in the sample of cornflour submitted to him for analysis. That being so, it is important to recollect the evidence given by the cook with regard to the celery, as botanical works state that unblanched celery is capable of producing poisonous results. The inquest was adjourned, and the coroner directed that a post-mortem examination should be held with a view to ascertaining whether an irritant poison such as arsenic could through any chance have been mixed with the food. The parents of the young ladies are naturally in a great state of anxiety, but I am glad to learn that nearly all the remaining sufferers are now convalescent.

July 9th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Presentation of Medals to Dr. Roux.

AT the end of last year the Municipal Council decided to offer, on behalf of the City of Paris, a medal to Dr. Roux, "pour rendre un solennel hommage à ses beaux travaux scientifiques si utiles à l'humanité." The Conseil Général of the department of the Seine adopted a similar resolution a few days later. Two gold medals were accordingly struck bearing on one side the effigy of the Republic designed by Chaplain, and on the other the words "A Docteur Émile Roux, le Département de la Seine," and "Au Docteur Roux, la Ville de Paris." The ceremony of presentation took place on Thursday last at the Hôtel de Ville, where there awaited our eminent confrère the members of the Bureaux of the two Councils, the Prefect of the Seine, and the Prefect of Police. In the course of the complimentary references made by the President of the Municipal Council to Dr. Roux's researches on diphtheria, he said: "Vous avez droit au plus précieux des remerciements, à celui des mères que vous avez rassurées et dont vous avez calmé les angoisses." The following letter from M. Pasteur was then read:—

"Monsieur le Président,

"Je regrette infiniment d'être dans l'impossibilité de me rendre à l'invitation que vous m'avez fait l'honneur de m'adresser. Lorsqu'en 1892 le président du Conseil municipal m'exprimait les vœux des élus de Paris et me parlait de la reconnaissance populaire, il me causait une de ces émotions qui font que toute une vie de travail se trouve récompensée en une minute et par un mot. Rien ne semblait pouver dépasser la joie que vous m'aviez donnée en ce jour de mes soixante-dix ans. Et cependant, ce que la municipalité de Paris veut faire aujourd'hui me touche encore davantage. Vous fêtez celui qui fut mon élève, mon cher collaborateur, M. Roux. Ce que j'aurais voulu dire devant lui et après vous, Monsieur le Président, c'est qu'en dehors des services rendus à la population parisienne par le traitement de diphtérie M. Roux contribue par ses cours à l'Institut Pasteur à répandre dans le monde entier une part d'influence française. Ainsi se continue, grâce à lui, aux chefs de service et aux préparateurs, l'œuvre que j'ai rêvée: laboratoires de recherches, laboratoires d'enseignement, travaux de longue patience pour arriver soit aux découvertes, soit au développement de certaines méthodes et leçons professées pour faire connaître une science nouvelle. Je remercie encore le Conseil municipal de ce qu'il a fait pour moi, de l'hommage qu'il offre aujourd'hui aux services rendus par M. Roux, et des bourses que le Conseil municipal a fondées à l'Institut Pasteur en faveur d'hommes pleins de mérite. Veuillez agréer, Monsieur le Président, l'assurance de ma haute considération. "PASTEUR."

Ambulatory Delirium.

In the *Gazette des Hôpitaux* of July 2nd there appears a communication from Professor Raymond, the late regretted Professor Charcot's successor, on the above-named curious malady, to which he gives the supplementary denomination "fugue." He points out that the condition is not part and parcel of amnesia, or even a consequence of it. In retrograde localised amnesia, due, for example, to an injury, the events of the forgotten period are ordinary occurrences, whereas the acts characterising the fugue are quite special. What imparts to ambulatory delirium a special "*cachet*" is the association of certain cardinal symptoms, the most important of which are three in number. They are: 1. An irresistible impulse to perform certain acts. In a case quoted it impelled the patient to walk, to undertake journeys; but the impulse may take some other channel of expression. 2. The act, whatever form it may take, is accomplishable in an intelligent manner; in other words, the movements are regular, coördinated, and in harmony with surrounding circumstances. The patient does not fall nor does he stumble against obstacles. He even does not omit to pay for his railway ticket. 3. The impulsive act performed, there is complete forgetfulness of the total period covered by the said act. The fugue may accordingly be defined as an impulsive, complicated, and quite coördinated act followed by amnesia. These impulsive acts, or fugues, may be met with in three different disorders—viz., epilepsy, hysteria, and in the *dromomania* of Régis. May they not also occur in senile dementia? Only last Wednesday afternoon an aged patient of mine inhabiting the Victoria Home, Neuilly, wandered away, bonnetless, and, discovered the same night by a policeman on a bench at Batignolles, some miles away, was forthwith lodged at the Prefecture of Police, where she remained until discovered by us on the Friday afternoon. Questioned by me on Friday at the home, she assured me that she had never left her room. Her memory is a complete blank as to the events that occurred during her two days' absence from home. This poor old Englishwoman had lived in Paris for over thirty years, and was well acquainted with the topography of the city.

A Dental School at Bordeaux.

It is intended to create at no distant date at Bordeaux a school of dentistry. The promoters of the scheme are a few local dentists and a group of Doctors of Medicine, most of whom are members of the teaching staff at the Bordeaux Faculty of Medicine.

Medicine and Politics.

Our French *confrères* dabble in politics much more freely than ourselves. There is a fair sprinkling of them in both Houses of Parliament, and Conseils Généraux and municipalities are full of them. Woe to the practitioner who, having imbibed during his university career anti-clerical ideas, establishes himself in practice in a "reactionary" community, and ventilates his advanced and, according to him, enlightened opinions. His existence soon becomes a burden, and unless he be endowed with a thick skin and a long purse he may soon have to seek a more congenial field for the exercise of his profession. Nor are the Republicans more tolerant, as witness the enclosed advertisement culled from the current number of the *Progrès Médical*.

On demande un médecin républicain pour une commune importante du département de la Vendée. Tête de ligne de chemin de fer pour un port de pêche et une station balnéaire. Gare à 2 h. 1-2 de Nantes et à une demi-heure de la mer. Pays de vignobles. Pas de pharmacien. S'adresser à la rédaction du journal, le jeudi de 3 heures à 6 heures.

July 9th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Carcinoma Antitoxin.

THE article communicated by Professor Emmerich and Dr. Scholl to the *Deutsche Medicinische Wochenschrift*, which was mentioned in my letter inserted in THE LANCET of May 4th, was received here with general scepticism. That this feeling was justified is now proved by the published observations of Professor Bruns (Tübingen) and Professor Augerer (Munich). Professor Bruns was quoted by the authors as vouching for the efficacy of the treatment, but he now states that in no instance was a curative effect remarked, whilst in some cases the general state of the patients was very unfavourably influenced. Cardiac trouble and raising of the temperature were very frequent, and must have been due to a septic condition of the fluid. To this suggestion Professor Emmerich answered that the antitoxin was originally aseptic and must have been spoiled by Professor Bruns or his assistants. Professor Bruns replied that the fluid was examined immediately after its arrival in the bacteriological laboratory of the University, and numerous streptococci were found in it. Professor Augerer stated that two of his cases were attacked with real erysipelas during the antitoxin treatment. The controversy between Professor Emmerich and his opponents sometimes assumed a very personal character and continues to fill the columns of the medical papers. The general impression is that the real carcinoma antitoxin has not yet been discovered.

The Annual Meeting of the German Practitioners' Association.

This meeting was held on June 28th and 29th in Eisenach, under the presidency of Dr. Aub (Munich). As probably your readers are not acquainted with the organisation of the Practitioners' Association (Deutscher Aerztevereins-Bund) it is right to explain that it has no scientific objects, but was founded in order to improve the social condition of the profession. The association, like the British Medical Association, consists of district branches whose delegates meet every year and form the "Deutscher Aerztetag." At these meetings questions of general professional interest are discussed, especially those concerning the relations between medical men and the public. The delegates have as many votes as they represent members, and the district branche, salthough independent, are required to observe the decisions of the meeting. There is also a council elected annually, which meets from time to time to prepare the business of the general meeting and to deal with urgent questions. The institution has no official character, but depends entirely upon the voluntary agreement of the individual urban and district branches. The meeting was opened by the chairman, Dr. Aub, who in his introductory address pointed out that the workmen's insurance laws, by which every workman was compelled to become a member of a sick-club, had materially affected

some departments of medical practice. Individual practitioners being powerless to struggle against the predominancy of the clubs, it becomes the duty of every medical man to join his district association, when he will be supported against any unjustifiable pretensions of the sick-club committees. Another matter of importance, which requires the close attention of the representatives of the profession, is, in Dr. Aub's opinion, the obvious deficiency of the qualifying examinations. For instance, a knowledge of mental diseases, which is not required by the existing regulations, ought to be regarded as a necessity for every practitioner. Alluding to the Mariaberg Asylum trial, the chairman said that a lack of knowledge of this branch of medicine had unfortunately caused medical men to appear at a disadvantage in the courts of law. After this introductory speech the secretary reported that the association had now 249 district branches, with 14,139 members, and that 117 delegates, representing 13,407 medical practitioners, were present at the meeting. The first subject discussed was the so called "free choice" system (freie Aerztewahl), which I explained in THE LANCET of Feb. 2nd, 1895. According to this system, a sick-club does not appoint a fixed number of medical officers, but any practitioner of the district who agrees to the club terms is allowed to attend the members. There are only a few places where this system is still in operation, but the desire to have it adopted everywhere is very strong, not only in the profession, but also among the working men, the latter, of course, wishing to exercise the right of selecting the medical attendant in whom they have most confidence. The principal opponents of the new system are the specially appointed medical officers, who fear that they will lose much of their income if the fees paid by the clubs are distributed among all the practitioners of the place. The opinion of this meeting, where very numerous adherents of both the old and the new system were present, was therefore anxiously awaited. After a very long and sometimes heated debate the following motion was adopted: "That this meeting is of opinion that the free choice system is the most satisfactory both to the profession and to the club members, and that it is therefore desirable to have this system accepted throughout the empire; that, in order to avoid unjustifiable demands on the part of club committees, the contracts with the clubs ought to be made, not by the individual practitioner, but by the district branches of the association." A contrary motion, proposed by Dr. Windels, to the effect that the free choice system, although theoretically preferable, would lead the clubs to ruin, was rejected by an immense majority. On the second day the meeting discussed the mutual relations between medical practitioners and insurance companies. Several anomalies exist in these relations and ought to be abolished. In some companies, for instance, it is usual for the insurance agents to appoint the medical officers for the companies. At a joint conference of the council of the Practitioners' Association and the managers of the insurance companies it was agreed: (1) That the medical officers shall be appointed by the managers only and not by the individual local agents; (2) that the medical examination shall take place in the consulting-room of the medical man and not in the house of the proposer; (3) that the results of the examination shall be kept strictly secret; (4) that a fee of at least ten marks shall be paid by the company for every examination; and (5) that a permanent commission, consisting of medical men and insurance officials, shall be instituted in order to settle disputed questions. In the discussion it was stated that some medical men had been made liable to legal prosecution because they had given information as to the health of a proposer's relatives without having previously obtained their permission. It was thereupon decided that the companies should arrange these matters with the families before applying to their medical officers for a certificate. All the other propositions of the council were unanimously adopted. The next meeting will be held at Nuremberg.

June 9th.

ROME.

(FROM OUR OWN CORRESPONDENT.)

Italy out of Town.

"Two voices are there, one is of the sea, One of the mountains," sings Wordsworth in a magnificent sonnet, and all Italy, professional or lay, is divided as to which it shall respond to. There is so much that is to be said for either that many will declare for both—if Romans, alternating between the Sabine or Alban Hills and Porto d'Anzio; if Neapolitans, between Capo di Monte and Sorrento; if Tuscans, between Vallombrosa and Viareggio. Italy, indeed, suffers from an *embarras de richesses* of summer haunts, and nothing but her backward hotel enterprise explains the fact that she does not detain on her uplands or on her seaboard the thousands of winter residents who would gladly avoid the Swiss tourist hive or the Tyrolese ant-hill. But she must take not one, but many leaves out of the Helvetian hotel-book before she can keep the visitors she attracts, and particularly on the less familiar lines of travel she must bring her cuisine and her accommodation, above all her drainage and her water-supply, out of the rut of mediæval tradition if she is to spare herself the mortification of witnessing the paying public deserting her picturesque, historic towns for Swiss hamlets which are neither and have not even the advantage of more invigorating air. No British practitioner in her more frequented winter cities but has lamented the sad necessity he has been under of sending his convalescents, often at great risk and greater expense, "over the watershed," when Nature was literally holding out her hands to detain them, and nothing but the rough, sometimes revolting, hotel appointments frustrated her kindly invitation. Improvement is, indeed, manifest in some of the provinces; but, in Mr. John Morley's phrase, the pace is "killingly slow," and we shall be well into the twentieth century before Italy returns to the social refinements and attractions even of Baiæ or Prænestе in the first.

A Mixed Blessing.

This, as THE LANCET[1] has pointed out, is a proper characterisation of the introduction of the new remedy for diphtheria so successfully practised in many a European city. It has had the effect of paralysing that hygienic or sanitary movement which, in these centres, was just beginning to combat the diphtheritic poison at its source. By the opportune injection of the "siero difteritico" a Roman child well-nigh moribund from the disease was the other day rescued in the most striking manner, and the names of the physicians in charge of the patient received an attention which these able practitioners would gladly see bestowed on the faulty health conditions to which the little patient owed his malady. But the old adage, "Prevention is better than cure," is a plant of tardy growth in a semi-superstitious society, where the prestige of a "sovereign remedy" will always countervail the humbler calls of sanitary observance. Happily "igiene locale" has been vigorously taken up by the communal Giunta and a "regolamento" formulated for Rome and its province which will shortly be extended, on express application, to 150 other communes throughout the kingdom.

The Health of the Pope.

After nearly ten months of in-door life, His Holiness has resumed of late his saunter in the Vatican Gardens—that spacious and beautifully disposed expanse of wild wood and flower bed which slopes gently uphill from behind the Palace to the ridge of the Janiculan. The frequent fountain, "shaking its loosened silver in the sun," the winding watercourses "still murmuring, as they run, to the hushed ear of noon," are not less grateful to sense than to respiration, from the delicious coolness they impart under the vertical heat. After threading his favourite walks in this "maze of amenities," as it has been called, the Holy Father retires to the tower of Leo IV., recently adapted as a summer retreat by the architect Vespignani, from whose able hands it passed into others not less able in the department of internal decoration and appointments. There the supreme Pontiff can, on occasion, give audience to the high functionaries of his court; there he can spend the forenoon and afternoon in study and *siesta* with a degree of comfort that prompted the suggestion that he might have sleeping apartments fitted up in the tower as well. But the project found no favour with the medical advisers who keep watch over his person, the Mons Vaticanus still retaining through the hours of night that character for insalubrity it received from the Augustan poets. So before sunset Leo XIII. is conveyed back to the Palace and up the successive flights of stairs in his *sedia gestatoria* to the traditional dormitory of his predecessors. How well the life he now leads is suiting him may be inferred from the fact that not for many months has the august octogenarian been more vigorous in mind or body. Indeed, no

[1] THE LANCET, Jan. 12th, 1895, "Sero-therapy and Sanitation."

later than the 4th inst. he gave an audience, at the close of the day, to Don Paolo Rossignoli, the missionary hero who effected so romantic an escape from the dungeon of the Mahdi—an audience which lasted nearly an hour, during which His Holiness, after listening attentively to his guest's thrilling narrative, examined him minutely as to the progress of the Roman Catholic missions in Upper Egypt, and having elicited from him much valuable information imparted the Apostolic benediction with quite unusual fervour.

The Origin of the Red Cross.

Italians have always claimed priority in conceiving and formulating those proposals for the international care of the wounded in war which culminated in the Geneva Convention. True, the French d'Arrault published on June 10th, 1861, his "Notice sur le Perfectionnement du Matériel des Ambulances Volantes," and the Swiss point complacently to their countryman Dunant's "Un Souvenir de Solferino," which, however, is dated 1862. But there is no doubt that before the former of these Professor Palasciano of the Naples Medical School read on April 28th, 1861, before the Accademia Pontaniana his "La Neutralità dei Feriti in Tempo di Guerra," in which, with arguments at once humanitarian and technical, he called on belligerent Powers to recognise on the battlefield a reciprocal neutrality in aid of the wounded, so as, by the greater efficiency of relief, to diminish the number of fatal cases among those who had to undergo amputation, and to withdraw from the necessity of amputation those on whom conservative surgery might be practised. Professor Palasciano, moreover, not content with enunciating the principle, developed, on Dec. 29th following, before the same Accademia, the following scheme for securing the neutrality desiderated: (1) That the belligerent armies should reciprocally give up all their wounded prisoners immediately after battle; (2) that all the wounded who could not be given up should be treated medically in the places occupied by the respective ambulance corps; and (3) that the ambulance corps should be furnished with a safe-conduct to pass the hostile frontiers and to remain there as long as required by their attendance on the wounded. Professor Palasciano continued his humane propaganda in every possible way, especially in his journal, begun after 1866 entitled "Archivio di Memorie ed Operazioni di Chirurgia." It was, in truth, a logical sequence of this propaganda that gave rise to the Geneva Society, which, after the International Congress of 1863 culminated in the Geneva Convention of Aug. 22nd, 1864. Out of this grew the Committee of the Red Cross, having its seat at Geneva, to which branches are affiliated from nearly every civilised nation in the world. In commemoration of Professor Palasciano's beneficent life-work a monument has just been unveiled to him in the Campo Santo at Naples, the spokesman of the occasion being Professor Pasquale Fiore, whose eloquent discourse insisted on the above facts and on many others in illustration of them before a distinguished audience, chiefly medical. The monument, a fine work of art, is of granite, and consists of a tomb, on which rises a great marble cross inscribed with the words: "Quod Deus conjunxit, homo non separet" (What God hath joined, let not man put asunder).

The Waters of San Genesio.

The Turin Medical School, mainly in its clinical and therapeutic departments, was largely represented the other day in an expedition to the source of San Genesio. From 1824 these waters were styled Fonte Regia from their proved efficacy in the case of more than one member of the Royal House of Savoy. In chemical quality they were classified as "saline-iodobromo-sulphurous," and as such they continued in much request. In 1870 an addition to the attractions of the spot was made by the discovery of a new spring classified as "ferrugino-alkalino-bromide," in which, by means of spectrum analysis, the Cavaliere Celestino Bonelli of Turin found a considerable proportion of lithia. The excursion party was formed to report upon the improvements effected in the balneary service and appointments as well as in the accommodation at San Genesio and the entertainment afforded to the invalid public. The result of the visit was altogether satisfactory, an impression which found eloquent voice in the after-dinner oratory of more than one distinguished professor of the sub-Alpine University, conspicuous among whom were Dr. Cesare Lombroso, the Lecturer on Animal Anthropology, Professor F. Porro, the eminent physicist, who holds the chair of Astronomy, and the well-known analyst the Cavaliere Bonelli.

The Health of the Kingdom.

The Consiglio Superiore di Sanità has just received the Commendatore Pagliani's report for the first *semestre* of the current year. The "condizioni sanitarie" are described as "relativamente buone." There were a few cases of small-pox, but whenever the malady declared itself it was promptly met, thanks to the efficacious measures at once set on foot by the Minister of the Interior. Professor Pagliani concludes by remarking that the "public health, satisfactory in the past *semestre*, represents a state of things which is steadily improving. Not only is the mean of 'morbosità' declining, above all in the infective diseases, but also the mean of the 'mortalità,' which marks a still more pronounced diminution."

July 7th.

RUSSIA.

(FROM OUR OWN CORRESPONDENT.)

Suicide and Crime in Russia.

PROFESSOR SIKORSKI of the University of Kief, writing in the *Kievlianin* upon the psychology of the Russian people, brings forward some interesting statistics concerning the frequency of suicide in the different nations of Europe. According to these figures the death-rate from suicide per million living is in Saxony 311, in France 210, in Prussia 133, in Austria 130, in Bavaria 90, in England 66, while in Russia it is as low as 30. Further, it is found that during the last thirty years the suicide-rate has in Russia remained stationary, while in all other European countries it has increased by 30 or 40 per cent. The exact significance of figures such as these, relating to so complex a phenomenon as suicide, is not easily brought out. Few, however, will be disposed to question the assertion that much of the explanation of the low rate in Russia is to be found in the patience and long-suffering of the Russian peasant under even the worst misfortunes. Among other characteristics Professor Sikorski also finds a certain indecision of character which fears to say a word or do an action which shall not admit of retreat or withdrawal. Crime is comparatively rare in Russia; thus, the number of persons tried for murder per million living in the year 1887 was in Italy 96, in Spain 55, in Austria 22, in France 15, in Russia 10, in Germany 9, and in England only 6.

Cholera.

Little has been heard of cholera in this country during the present summer. For many weeks past the only district in which the disease has been present has been the government of Volhynia. The latest returns from there are as follows: from May 14th to 20th, 42 cases and 9 deaths; from May 21st to 27th, 37 cases and 11 deaths. (The dates mentioned are Old Style dates.) St. Petersburg is so far free from cholera. In 1892 the earliest cases here were at the end of July; in 1893 the disease reappeared early in August; and last year it began as early as June 8th (20th).

The Government and the Harvesters.

A commission was recently appointed to inquire into and regulate the movements of peasants who leave their own districts to find harvest work in other and distant districts. The commission is appointed mainly with an economical object—the distribution of the labourers with the greatest advantage both to the labourers themselves and to the local requirements of the harvest. Some control, however, of this great annual movement of peasants should be of benefit from a public health point of view. Every year many thousands, attracted by the richer harvests of the south and east, have left their homes and, hitherto without any control, have made their way in those directions. Only too often they have found the market already overstocked and have had to return home destitute, although at the same time in other districts there was a dearth of labourers. Apart from this waste of force, the uncontrolled movement of so many peasants has been a fruitful means of spreading diseases. Among these syphilis holds perhaps the first place. Every year the report of the Medical Department brings forward evidence of this. I have already quoted the striking instance of one peasant who returned to his village and in the course of a few months infected with syphilis, which he contracted while

away, no less than twenty-three people. It is the same with zymotic diseases, the most striking example of which was the cholera epidemic of three years ago, which was largely spread by these "migrant labourers." The commission consists of representatives of the Ministries of the Interior, of Agriculture and Imperial Domains, of Finance, of Justice, and of Ways and Communications.

The Giliaks.

In my last letter I gave a short account of the Siberian tribe of Buriats. The following notes, relating to a still smaller tribe, the Giliaks, are from a Siberian newspaper (the *Tobolsk Government News*). The race appears to be rapidly dying out; there are now only some 3000 of them living. They are found in the island of Sakhalin (the penal convict island of Russia in the Pacific) and along the banks of the river Amur. Like the Buriats they smoke and drink inordinately. For *vodka* a Giliak will sell anything—his wife, his daughter, his sister, his mother, and even the bear which he looks upon as a god. Drink and syphilis are rapidly exterminating the race, and the end is hastened by the barbarous treatment of their women in childbed. When labour begins the woman is taken to a rapidly prepared shed, and is there left absolutely alone until all is over. In summer this may perhaps matter little, but in the intense cold of a Siberian winter it often happens that either mother or child dies, and sometimes both. Their religion consists solely of the worship of the bear. Young bears, it is said, are caught alive and carefully fed until they attain maturity; they are then led out into the woods at night time, and by the light of bonfires and with much singing and dancing are slaughtered. The flesh is torn from their bones and, while still smoking, eaten by the Giliaks, who look upon it as holy food. Altogether, the picture of these remote Siberian tribes is not an inviting one.

St. Petersburg, June 24th (July 5th).

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

Insanity in New South Wales.

THE annual report of the Inspector-General of the Insane in New South Wales has just been published. On Dec. 31st, 1894, the number of insane persons on the register was 3587, as against 3425 at the close of 1893, or an increase of 162 during the past year, which is very much above the average for the past twenty years. The chief factor in the production of this increase has been the general commercial depression, which has operated in two ways: first, by directly producing insanity, especially in the neurotic and weak-minded, who are handicapped in the race when the conditions of life are more than usually hard; and, secondly, by obliging persons, formerly able and willing to support idiot children and imbecile relatives of older years, to throw them upon the charity of the State. The proportion of insane to population, which in 1893 was 1 in 357, had at the close of 1894 risen to 1 in 348. The total number admitted was 712, and of these 644 were admitted for the first time. The discharges numbered 350, and of these 286 had recovered and 54 were relieved so far as to permit of their being left in the care of relatives. The recovery and death rates compare very favourably with the returns from institutions in Great Britain. For the first time for twenty-eight years the whole of the patients at the charge of the Government are housed within the wards of its own hospitals. The average weekly cost for maintenance was 10*s.* 7*d.*

Medical Practitioners Bill for New South Wales.

The Bill for the registration of medical practitioners and imposing penalties on any unqualified person who assumes any title implying that he is a legally qualified medical practitioner, has been considered in committee in the legislative assembly and passed its second reading.

New South Wales Medical Union.

From the report of the New South Wales Medical Union, read at the annual meeting of that association, it appeared that 46 new members had been elected during the past year, and there were on Feb. 28th, 1895, 127 members. Several cases had been considered. In the case of the late Dr. Struthers *v.* White the defendant apologised and withdrew all charges, and paid all costs. In the case of Hull *v.* Dr. Cummings the jury found for the defendant. Another case was still *sub judice*. The election of office-bearers resulted as follows:—Trustee: in place of Dr. C. Dagnell Clark Dr. T. Fiaschi. Hon. Treasurer: Dr. W. H Crago. Joint Hon. Secs.: Drs. A. Jarvie Hood and G. Lane Mullins. Members of Council: Dr. G. H. Macswinney, Mr. J. Foreman, Dr. A. MacCormick, Dr. S. T. Knaggs, Dr. P. J. Collins, Dr. R. Scot-Skirving, Dr. E J. Jenkins, Mr. B. J. Newmarch, Dr. R. L. Faithfull, and Mr. P. M. Wood.

Action against a Private Hospital.

A case of some interest to the profession was recently tried in Melbourne. The plaintiff, Mr. C. J. Carter, sued Miss Macartney for negligent treatment while an inmate of the defendant's private hospital. Mr. Carter was originally a patient in the Melbourne Hospital, suffering from typhoid fever. Abscesses then formed in many places and were opened and drained. He went home and then went into Miss Macartney's private hospital, where other abscesses were opened and drained, and it was alleged that a drainage-tube three inches long was left in one of the wounds, which closed over the tube. He returned to the Melbourne Hospital, where the tube was extracted. He claimed £500 damages. For the defence it was stated that no incision was made in the right thigh (from which the tube was extracted) during his stay at Miss Macartney's hospital, and that there was no negligence in nursing there. The judge said the plaintiff had proved negligence, and gave a verdict for £25.

Gynæcological Cases.

The current number of the *Australian Medical Journal* is characterised by the number of cases of gynæcological interest it contains. Mr. F. D. Bird records two cases. The first was a suppurating ovarian hydrocele, the diagnosis of which was puzzling, the symptoms coming on suddenly and simulating appendicitis at one time and intestinal obstruction at another. When the acute symptoms had subsided laparotomy was performed and the cyst removed. The patient made a perfect recovery. The second case was one of ovarian abscess, admitted with symptoms pointing to perforative peritonitis and in a state of collapse. Laparotomy was performed a month after admission, and the condition found to be salpingitis, with an abscess in the ovary, a leakage from which, it was assumed, was the cause of the acute symptoms. Mr. W. Moore records three cases. The first was a case of ovarian hydrocele, the second was an abscess in the ovary, and the third salpingitis with adhesions. Laparotomy was successfully performed in each case. Dr. James A. Reid records three cases. Two were tubal pregnancies, one ruptured, and the other unruptured. The first case died from intestinal obstruction after laparotomy attributed to a kink in the bowel; the second case recovered. Dr. Reid inquires whether a tubal fœtation is ever arrested in its growth and absorbed without going on to rupture or suppuration. In his second case the growth had apparently come to a standstill about the sixth or seventh week of its life, and at the eleventh week showed no evidence of any tendency to rupture. Dr. Reid also reports a case of complete prolapse of the uterus, vagina, bladder, and rectum treated by hysterectomy and perineorrhaphy, and complicated by hydronephrosis due to calculi blocking the right ureter, but at first suggesting ligature of the ureter during the operation. At the last meeting of the Victorian Branch of the British Medical Association gynæcology was again *en évidence*, Dr. Felix Mëyer reading Notes on Six recent Cases of Abdominal Section. Two were for uterine fibro-myoma, one for ovarian cyst, one for pelvic peritonitis, one for cyst of the broad ligament, and one exploratory, the condition found being a pregnant uterus with fibro-myoma.

Case of Carcinoma of Perineum and Urethra.

Mr. G. A. Syme records a case of growth in the perineal region associated with urinary fistulæ and following an injury received ten years before. The growth occupied the perineum, blocked the urethra, and projected into the rectum. Microscopic examination showed that it was an epithelioma.

Appointment.

Mr. C. P. B. Clubbe has been appointed surgeon to the Prince Alfred Hospital, Sydney, and Lecturer on Clinical Surgery at the Sydney University, in place of Mr. Twynam, resigned.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the Second Examination of the Board in the subjects indicated at a meeting of the Examiners on Thursday, the 4th inst. :—

Anatomy and Physiology.—Arthur Henry Michael Saward, Oswald Marriott, Albert Henry Beaumont Kirkman, William Pennington Grellet, Vincent James Crawford, Arthur Richard Thomas, John Edward Powell, and Arthur William Nourse, Guy's Hospital; Penry William Rowland, Llewelyn Arnold Baiss, and Cyril Pinchard Burd, St. Bartholomew's Hospital; Guy Hemming Coltart, Westminster Hospital; Henry Herbert Johnson Edwards, Hugh Campbell Ross, Hugh Basil Greaves Newham, and Edward Ernest Nicholl, St. Thomas's Hospital; William George Porter and James Warburton Brown, Charing-cross Hospital; Vernon Cyril Bensley, St. Mary's Hospital; and Alexander Mercer, University College, London.

Anatomy only.—Sidney Herbert Mason, Guy's Hospital.

Fifteen gentlemen were referred in both Anatomy and Physiology.

Friday, the 5th inst.:—

Anatomy and Physiology.—John Haselwood Roberts, Charles Deane Outred, Charles Bertram Thomson, Thomas Hamlyn Whittington Landon, and William Langworthy Baker, Guy's Hospital; Arthur Ruscombe Crane Parsons, King's College, London; Frank Horridge, George Ernest Gask, and Richard Strike Flemying Hearn, St. Bartholomew's Hospital; David Davies and Samuel Lee Craigie Mondy, University College, London; William Frederick Willis, George Arnold Hutchinson, and Henry Thomas Mann, St. Mary's Hospital; Stanley Arthur Lucas, Cambridge University and St. Thomas's Hospital; James Herbert Robinson, Charing-cross Hospital and Mr. Cooke's School of Anatomy and Physiology; Herbert Wortley Fisher, London Hospital; and Arnold Saxty Good, St. George's Hospital.

Eighteen gentlemen were referred in both Anatomy and Physiology.

Monday, the 8th inst. :—

Anatomy and Physiology.—Frederic Hasler and Evelyn Kempson Brown, London Hospital; Edward Erratt Parrett and Kenneth Bush Alexander, Guy's Hospital; Thomas Denman Dawson and Howell Davies, St. Bartholomew's Hospital; Charles Edward Fenn and George Oliver Pierce, King's College, London; Charles Ernest Turner, University College, London; Percy Gardiner, Middlesex Hospital; and Philip Dare Cogswell, St. Mary's Hospital.

Anatomy only.—Geoffrey Stuart Moore, London Hospital and Mr. Cooke's School of Anatomy and Physiology.

Physiology only.—Edgar Curnow Plummer, King's College, London; Francis Ryalls Eddison, St. Bartholomew's Hospital; Edward Simpson Shave and William Walton Claridge, Middlesex Hospital; and Henry Priest Shanks, University College, London.

Nineteen gentlemen were referred in both subjects, five in Anatomy only, and one in Physiology only.

Tuesday, the 9th inst:—

Anatomy and Physiology.—Edmund Frederick Rose, St. Bartholomew's Hospital.

Anatomy only.—James Michael Aloysius Manning and Charles Nugent Chadborn, St. George's Hospital; Winstan St. Andrew St. John, St. Mary's Hospital; Frederick Arthur Johns, London Hospital; Lanyon Edward Owen, University College, London; Cyril Cecil Poole, Guy's Hospital.

Physiology only.—John James Cecil Hamilton, King's College, London; Charles Arthur Craven Salmon, Guy's Hospital; Frank Voller, St. Thomas's Hospital; Alfred Edward Seller, London Hospital; Frederick John Waldmeier, Syrian Protestant College, Beyrout, and London Hospital.

Four gentlemen were referred in both subjects, four in Anatomy only, and four in Physiology only.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates passed in the Primary Examination, Part I., July, 1895 :—

Chemistry.—F. R. Greenwood, St. Bartholomew's Hospital; and E. C. Scarlett, Royal Free Hospital.

Materia Medica and Pharmacy.—C. E. C. Child, Charing-cross Hospital; L. T. Lavan, St. Bartholomew's Hospital; E. E. H. Madden, Royal Free Hospital; G. H. Williams-Parry, Sheffield; A. Ross, Guy's Hospital; and C. H. Thomas, London Hospital.

Primary Examination, Part II. :—

Anatomy and Physiology.—M. E. Bennett, Royal Free Hospital; G. E. Brooke, Cambridge and London Hospital; H. J. Clutterbuck, Middlesex Hospital; A. M. Edey, Sheffield; T. A. E. Fawcett, Leeds; C. L. Francia, St. Bartholomew's Hospital; C. Franks, Westminster Hospital; G. C. Hobbs, St. Bartholomew's Hospital; W. E. G. Maltby, St. Bartholomew's Hospital; H. D. Matthews, Middlesex Hospital; C. Powell, Cambridge and St. Thomas's Hospital; B. G. Roscoe, Manchester; and C. H. Thomas, London Hospital.

Anatomy.—W. F. E. Ashton, Birmingham; G. F. Beacher, Sheffield; H. J. De Saram, Middlesex Hospital; E. P. Marett, St. Thomas's Hospital; G. L. Meredith, London Hospital; H. Morris, St. Bartholomew's Hospital; and G. Parnell, Charing-cross Hospital.

Physiology.—T. H. Bailey, King's College; F. E. Bissell, Birmingham; M. Caldwell, Dublin; R. F. W. Crawford, St. George's Hospital; G. A. Crowe, London Hospital; G. W. Dutton, Middlesex Hospital; M. B. Hebron, King's College; C. E. Hibbard, Guy's Hospital; B. Hogan, London Hospital; H. M. Maitland, Royal Free Hospital; S. J. Meredith, Birmingham; C. E. Proctor, Liverpool and Edinburgh; F. L. Roper, Dublin; E. G. Smith, Westminster Hospital and London Hospital; W. A. Sugden, St. Mary's Hospital; and D. L. Thomas, Birmingham.

FOREIGN UNIVERSITY INTELLIGENCE.—*Bordeaux:* MM. Cannieu and Pachon have been appointed *professeurs-agrégés* of Anatomy and Physiology respectively.—*Lyons:* MM Siraud and Durand have been appointed *professeurs-agrégés* of Anatomy, and M. Doyon *professeur-agrégé* of Physiology.—*Melbourne:* Dr. F. D. Bird has been appointed Lecturer on Surgery.—*Montpelier:* MM. Mouret and Delezenne have been appointed *professeurs-agrégés* of Anatomy and Physiology respectively.—*Palermo:* Drs. Mirto, Ficano, di Blasi, and Foderà have been recognised as *privat-docenten* in Psychiatry, Laryngology, Hygiene, and Pharmacology respectively.—*Nancy:* MM. Jacques and Lambert have been appointed *professeurs-agrégés* of Anatomy and Physiology respectively.—*Naples:* Drs. Jappelli, Baculo, Costabile, and Screvini have been recognised as *privat-docenten* in Physiology, General Pathology, Pharmacology, and Odontology respectively.—*Paris:* M. Thiéry has been appointed *professeur-agrégé* of Anatomy.—*Prague* (German University): Dr. von Wunschheim has been appointed *docent* in Pathological Anatomy. Dr. Hugo Rex, Dr. J. Pohl, and Dr. Steinach have been promoted to Extraordinary Professorships of Anatomy, Pharmacology, and Physiology respectively.

MEDICAL MAGISTRATES.—Mr. William Evans, L.R.C.P. Edin., M.R.C.S., of Llanerchymedd, has been placed on the Commission of the Peace for the County of Anglesey.—Mr. R. D. Evans, M.R.C.P., L.R.C.S. Edin., of Llysmeddyg, Blaenau-Festiniog, has been placed by the Lord Chancellor on the Commission of the Peace for Merionethshire.

PRESENTATION.—Mr. Hugh Lewis Hughes, L.R.C.P. & S. Edin., Dowlais, was on the 14th ult. presented with a massive solid brass timepiece, together with a pair of candelabra to match, elegantly designed and bearing the inscription: "Presented to Dr. Hughes by the members of the Women's Ambulance Class, Dowlais, June 14th, 1895." This is the sixth occasion on which the local members of the St. John Ambulance Association have shown their appreciation of his labours as surgeon-instructor.

BEQUESTS AND DONATIONS TO HOSPITALS.—Sir Donald Currie, M.P., has sent a donation of £100 towards the Royal Infirmary, Newcastle-upon-Tyne, as a memento of his recent visit to that borough.—The late Mr. Thos. R. Harding of St. Ann's Tower, Leeds, has bequeathed £100 to the Leeds General Infirmary.—A legacy of £36,236 has been received by the Court of Governors of the London Hospital from the late Mr. W. A. Gursden.—Mr. John E. Davies, late of Park-street, Bristol, has bequeathed £200 to the Bristol Hospital for Sick Women and Children.—The late Mrs. A. T. Hall of Lowndes-square, London, has bequeathed £20,000 to St. George's Hospital, Hyde-park-corner, in memory of her late husband, Major Hall.—Mr. John Howarth Ormerod, late of Beechwood, Birkdale, has bequeathed (free of legacy duty) £1000 to the Halifax Infirmary.—The last Sheffield Hospital Sunday Fund collection, which amounted (after paying expenses) to £1941 8*s.* 10*d.*, has been apportioned as follows:—The Sheffield General Infirmary, £1073 10*s.* 7*d.*; the Royal Hospital, £462 8*s.* 11*d.*; the Jessop Hospital, £296 10*s.* 2*d.*; and the Children's Hospital, £108 19*s.* 2*d.*—Lady H. M. R. Robinson, late of Penzance, has bequeathed £500 to the Royal Hospital for Incurables.—The trustees of Smith's (Kensington Estate) Charity have granted a donation of £500 to the special fund now being raised for St. Thomas's Hospital, London; and the Corporation of the City of London has voted 200 guineas towards the same fund.—A gift of £1000 has been received by the treasurer of the Royal Hospital for Diseases of the Chest, City-road, London, from a lady who does not wish her name to be announced.—The Great Northern Central Hospital, London, has received a further grant of £400 from the trustees of Smith's (Kensington Estate) Charity.—The late Mr. John Hughes of Liverpool has bequeathed £300 to the Liverpool Eye and Ear Infirmary, £200 each to the Liverpool Royal Infirmary and the Liverpool Royal Southern Hospital, and £100 to the Stanley Hospital; and after the decease of Mrs. Hughes the following bequests are left—viz.: £500 each to the Liverpool Eye and Ear Infirmary, the Liverpool Royal Infirmary, and the Royal Southern Hospital, Liverpool, and £250 to the Stanley Hospital.—The treasurer of the Dundee Royal Infirmary has received a donation of £1540 from Mr. James Key Caird, being the amount of the deficit on the last year's accounts.

DURING the meeting of the British Medical Association the President and Fellows of the Obstetrical Society of London intend to give a banquet at the Whitehall-rooms on Friday, Aug. 2nd, at 7 P.M., in order to entertain distinguished foreign obstetricians and gynæcologists.

VACATION COURSES IN BELGIUM.—Some of the Belgian universities are making arrangements for vacation courses for practitioners to be held in the month of September. These will be of the same character as the well-known courses in the German universities, and may be useful to English practitioners who want a little insight into Continental methods, especially if their knowledge of French happens, as is frequently the case, to be far better than their knowledge of German. Brussels, Liége, and Ghent are opening their doors this summer for vacation courses, but up to the present Louvain appears to be holding aloof from the movement.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

Close of the Session and the Parliament.

ON Saturday, July 6th, the work of the session was brought to a close, and the prorogation took place, and on Monday, July 8th, the Parliament was dissolved by Her Majesty the Queen, acting on the advice of the Marquis of Salisbury.

Weights and Measures.

The Select Committee of the House of Commons appointed to inquire into and report upon our system of weights and measures has recommended that the metrical system be at once legalised for all purposes, that after a lapse of two years it be rendered compulsory by Act of Parliament, and that the system be taught in all public elementary schools as a necessary and integral part of arithmetic, and that decimals be introduced at an earlier period of the school curriculum than is the case at present.

HOUSE OF LORDS.

FRIDAY, JULY 5TH.

Factories and Workshops Bill.

In order to get the Factories and Workshops Bill passed into law before the close of the Session their lordships suspended the standing orders of the House and took all the stages of the Bill at this sitting. On the second reading stage there was a debate of considerable length.

The Marquis of Ripon, in moving the second reading, said that the Bill introduced no new principle, but simply extended the existing factory legislation. In these days, when every one felt so great an interest in all matters connected with sanitary legislation, and when sanitary science had advanced so much and impressed itself so strongly on the mind of the public and Parliament, he felt confident that there were no members of the House who would object to make the provisions of factory and workshop legislature more stringent and more complete in respect to sanitary matters so as to secure the safety of the workers. There was one provision which would specially commend itself, and that was the provision for the imposition of a penalty for allowing wearing apparel to be made up in places where there was any infectious disease. There was another provision which prohibited children from being engaged in the cleaning of machinery in motion. There were also provisions for the maintenance of a register of accidents, which he was quite sure all their lordships would approve. In attempting to pass the Bill, he must depend, of course, upon the new Government, and he appealed to the members of it in the House to give him their aid.

The Marquis of Salisbury said that the Bill belonged to a class which had always been received with great favour in this House, and he agreed that our experience of the Factory Acts was such as to make it desirable to extend their principles as far as we could do so with success. He had nothing to say against this Bill, except to express some slight apprehension with regard to the provisions affecting laundries. He was afraid it would aid the tendency to crush out the smaller industries in this country.

Viscount Cross, speaking as the Minister who was responsible for what was now the principal Act affecting factories and workshops, said that the Act had stood the test of twenty years, and had been the charter of all workmen in factories and workshops.

After some further discussion the Bill was passed through its various stages in exactly the form in which it left the House of Commons.

Fatal Accidents Inquiries (Scotland) Bill.

There was also some discussion before this Bill was passed. Lord Balfour of Burleigh, the new Secretary for Scotland, intimated that it had his approval. He thought it desirable that inquiries into accidents occurring in industrial employments in Scotland should no longer be conducted in secret, although he did not altogether feel confidence in the method of inquiry proposed in the Bill.

HOUSE OF COMMONS.

THURSDAY, JULY 4TH.

The Case of Dr. Cornelius Herz.

On the order for the second reading of the Extradition Bill, Sir Edward Reed said that, while the measure was understood to be intended to meet the case of Dr. Cornelius Herz, it would be of no use in that case unless it contained a provision enabling an accused person to be tried, although not present in court.—Sir Albert Rollit explained that during the period that Dr. Herz had been in England his health had so declined that unless the hearing of his case could be taken in a private residence the Bill would not benefit him.—Mr. Asquith said that undoubtedly the Bill had been suggested to the late Government by the case of Dr. Herz. Without going into the general question of the treatment of Dr. Herz, or the suggestions that he had been subjected to unreasonable espionage, he desired to state that, within the limits which the existing law allowed, the treatment of Dr. Herz, so long as the late Government were responsible in the matter—and he had no doubt it was so still—had been not only humane, but most considerate. Dr. Herz had from first to last been treated with indulgence, and there was no foundation whatever for the statement that, so far as the existing law permitted, he had been subjected to any hardship.

The Bill was read a second time, and at the following day's sitting passed through its other stages.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.

BALLANTYNE, J. W., M.D., F.R.C.P.E., F.R.S. Edin., has been appointed Examiner in Midwifery in the University of Aberdeen.

BEASLEY, J. G., L.R.C.P. Edin., L.F.P.S. Glasg., has been appointed a District Medical Officer by the Rowley Regis Urban District Council.

BRIDGES, ERNEST C., M.B., B.S. Durh., L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to the Great Northern Central Hospital.

BUCHANAN, ROBT. J. MCLEAN, M.B. Univ. Vict., L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Assistant Physician to the Liverpool Hospital for Consumption and Diseases of the Chest.

BURTON, A., L.R.C.P. Lond., M.R.C.S., has been appointed House Physician to the Addenbrooke's Hospital, Cambridge.

CARVER, E., M.D. Cantab., F.R.C.S. Eng., has been appointed Consulting Surgeon to the Addenbrooke's Hospital, Cambridge.

COCKCROFT, M.D., St. And., M.R.C.S., has been reappointed Medical Officer for the Masham Sanitary District of the Leyburn Union.

ERSKINE, R., M.D., M.Ch. Irel., has been reappointed Medical Officer for the Camborne Sanitary District of the Redruth Union.

GOODMAN, GODFREY, L.R.C.P.I., L.R.C.S.I., L.M.R.C.P.I., has been appointed Medical Officer of Health to the Rural Sanitary District of the Brigg District Council, vice Moxon, resigned.

GREIG, W. C., M.B. and C.M. Edin., has been appointed Honorary Physician to H.B.M.'s Legation at Tangier.

GRIFFITHS, JOSEPH, M.D., C.M. Edin., F.R.C.S. Eng., D.P.H. Cantab., has been appointed Surgeon to the Addenbrooke's Hospital, Cambridge, vice Carver, resigned.

HALPIN, J. E., L.R.C.S.I., L. and L.M.K.Q.C.P.I., has been appointed Public Vaccinator for the Fifth District of the Mansfield Union, vice H. Parry Jones.

HALPIN, J. E., L.R.C.P., L.M., L.R.C.S. Irel., has been appointed Medical Officer for the Mansfield Woodhouse Urban Sanitary District, vice Jones.

HINES, JOSEPH, C., L.R.C.S., L.M. Irel., has been appointed Medical Officer for the Burwash Sanitary District of the Ticehurst Union.

JOHNSTONE, E., L.S.A., has been appointed Medical Officer for the Clayton Sanitary District of the Prestwich Union.

KELLY, CHAS., M.D., Lond., F.R.C.P., M.R.C.S., has been appointed Medical Officer of Health to the East Preston Rural Council.

LANGDALE, H. M., M.R.C.S., has been reappointed Honorary Medical Officer to the Uckfield Cottage Hospital.

LUCAS, G., M.R.C.S., has been reappointed Honorary Medical Officer to the Uckfield Cottage Hospital.

MCLEAN, C. J. R., M.D., C.M. Edin., has been reappointed Medical Officer to the Yeadon District Council.

MCWEENEY, E. J., M.D., M.Ch. Irel., has been appointed Analyst to the Richmond District Lunatic Asylum, Dublin.

OLDMAN, C. E., M.D. Cantab., has been appointed Medical Officer of Health for the Godstone Rural Sanitary District.

PECK, E. G., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer for the Queensbury District of Yorks.

PERMEWAN, W., M.D. Lond., F.R.C.S. Eng., has been appointed Honorary Laryngologist to the Royal Southern Hospital, Liverpool.

PHILLIPS, EDGAR V., M.R.C.S., L.R.C.P. Lond., D.P.H., R.C.S.I., has been appointed Medical Officer to the No. 5 District Market Harborough Union, Medical Officer of Health Market Harborough Rural Sanitary District, and Medical Officer of Health to the Oxenden Rural Sanitary District, vice Thomas Macaulay, resigned.

RHIND, THOMAS, M.R.C.S., L.R.C.P. Lond., has been appointed Medical Officer to the No. 1 Western District, Billesdon Union, vice E. V. Phillips, resigned.

SALT, A. H. D., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Fourth Sanitary District of the Blean Union, vice Wheeler, resigned.

SELBY, EDMOND WALLACE, M.B., B.S. Lond., F.R.C.S. Eng., has been appointed Honorary Surgeon to the Doncaster General Infirmary and Dispensary.

SEWILL, J. SEFTON, M.R.C.S., L.R.C.P., L.D.S., has been appointed Dental Surgeon to the St. Marylebone General Dispensary.

SHILLITOE, ARTHUR, M.B., B.C. Cantab., L.R.C.P. Lond., M.R.C.S., has been appointed Registrar to the Lock Hospital, Paddington.

SYMONDS, CHARTERS T., M.S., M.D. Lond., F.R.C.S. Eng., has been appointed Consulting Surgeon to the Stockwell Orphanage, vice Durham, deceased.

TODD, H. B., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer of Health to the Charlton King's District Council.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BOROUGH OF LEICESTER.—Medical Officer of Health and Public Analyst). Total salary £500 per annum (£400 as Medical Officer and Superintendent of the Fever Hospital, and £100 as Public Analyst). Applications to the Town Clerk, Town Hall, Leicester.

BOROUGH OF LOWESTOFT.—Medical Officer of Health and Medical Attendant at the Sanatorium for the Urban and Port Sanitary Districts of Lowestoft. Salary for the Urban Sanitary District £100 per annum, for the Port Sanitary District £20 per annum, and as Medical Attendant at the Sanatorium, £30 per annum. Applications to the Town Clerk, Lowestoft.

BRADFORD INFIRMARY AND DISPENSARY.—Honorary Physician.

BRITISH INSTITUTE OF PREVENTIVE MEDICINE, Great Russell-street, London.—Assistant Bacteriologist in the Antitoxin Department. Salary £150 a year.

CANCER HOSPITAL (free), Fulham-road, S.W.—House Surgeon for six months. Salary at the rate of £50 per annum, with board and residence.

CHESTER GENERAL INFIRMARY.—Visiting Surgeon for two years. Salary to commence at £30 per annum, with residence and maintenance in the house.

CHICHESTER INFIRMARY.—House Surgeon. Salary £30 per annum, with board, lodging, and washing.

CHILDREN'S HOSPITAL, Nottingham.—House Surgeon (non-resident), for six months. Salary at the rate of £100 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—Resident Medical Officer. Salary £100 per annum, with board, &c.

COUNTY ASYLUM, Gloucester.—Third Assistant Medical Officer, unmarried. Salary £105 per annum, with board (no stimulants), lodging and washing.

COUNTY BOROUGH OF WEST HAM.—Resident Medical Superintendent for the Borough Hospital for Infectious Diseases at Plaistow. Salary £200 per annum, with annual increments of £10 up to a maximum of £250, and apartments and washing. Applications to the Town Clerk, Town Hall, West Ham, E.

COVENTRY AND WARWICKSHIRE HOSPITAL, Coventry.—Resident Assistant House Surgeon, for six months. Salary £15, with board (exclusive of beer, wines, and spirits), residence, washing, and attendance.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway-road, N.—Junior House Surgeon for six months. Board, lodging, and laundry in the hospital provided.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House Physician.

HOSPITAL FOR WOMEN, Soho-square, London.—House Physician, non-resident.

LEICESTER INFIRMARY.—Assistant House Surgeon for six months. An honorarium of £21 for that period will be given, and board, residence at the Infirmary, and washing provided.

LONDON HOSPITAL MEDICAL COLLEGE, Mile End, E.—Joint Lecturer on Physiology. Salary £150 a year and a proportion of the fees paid for classes. Not less than £250 in all.

PADDINGTON-GREEN CHILDREN'S HOSPITAL, London, W.—Assistant House Surgeon. Board and residence provided.

POPLAR HOSPITAL FOR ACCIDENTS, Blackwall, E.—Senior Assistant House Surgeon. Salary £80 per annum, with board and lodging.

SALFORD UNION INFIRMARY, Hope, near Eccles.—Assistant Medical Officer. Salary £130 per annum, with furnished apartments in the Infirmary. Applications to the Clerk to the Guardians, Union Offices, Eccles New-road, Salford.

STOCKPORT INFIRMARY.—Junior Assistant House Surgeon for six months. Board and residence provided, and an honorarium of £10 given, after six months satisfactory service.

STROUD GENERAL HOSPITAL.—House Surgeon. Salary £80 per annum, with board, lodging and washing.

UNIVERSITY OF GLASGOW.—Two Examiners in Medicine.

YORK DISPENSARY.—Resident Obstetric House Surgeon to attend midwifery cases at their own homes, unmarried. Salary £150 per year, with furnished apartments, coals and gas.

Births, Marriages, and Deaths.

BIRTHS.

FRAZER.—On July 2nd, at Upton Lodge, Devonshire-place, Eastbourne, the wife of Kenneth Frazer, B.A., M.D. Dubl., of a son.

HOWARD.—On July 1st, at Wealdstone, Harrow, the wife of Arthur Walters Howard, M.R.C.S. Eng., L.R.C.P. Lond., of a daughter.

MARRIAGES.

WATKINS—ASTEY.—On July 6th, at St. Mary Magdalen, St. Leonards-on-Sea, C. Stuart Watkins, M.R.C.S. Eng., of Warrior-square, to Henrietta Elizabeth Astey, of St. Leonards-on-Sea.

WHEELER—ARUNDEL.—On the 5th inst., at St. Mary's, Stoke Newington, by the Rev. Richard Holmes, B.A., Charles E. Wheeler, M.D., eldest son of Henry Wheeler, M.R.C.S., L.R.C.P., to Ethel, eldest daughter of the late Samuel Drew Arundel, of Stamford-hill, N. (No cards.)

DEATHS.

CASSIDY.—On June 14th, at Purnea, Bengal, Cecil Valois Clemons, son of Surgeon-Captain and Mrs. C. Clemons Cassidy, aged four months and ten days.

HARRISON-CAPES.—On June 25th, suddenly, at Poitiers, on his return to England, George Augustus Harrison-Capes, M.R.C.S., of Sible Hedingham, Essex, and Rue du Lycé, Pau, aged 82 years.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments & Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET should be addressed "To the Manager."

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

THE Index for the half-year ending June, which was given in the number of the 29th ult., completed the first volume of the year 1895. The practice of supplying loose copies has been discontinued, the Index having been placed in the centre of the journal, whence it can easily be detached, and placed either at the beginning or at the end of the volume.

VOLUMES AND CASES.

VOLUMES for the first half of the year 1895 are now ready. Bound in cloth, gilt lettered, price 18*s*.

Cases for binding the half year's numbers are also ready. Cloth, gilt lettered, price 2*s*.

To be obtained on application to the Manager, accompanied by remittance.

THE LANCET AND ACCIDENT INSURANCE.

A LITHOGRAPHED CIRCULAR LETTER, emanating from an office in the Strand district, is being sent to members of the medical profession, offering to supply them with THE LANCET, in conjunction with an accident insurance policy. The Proprietors of THE LANCET are in no way connected with the scheme (of which they cannot approve), and were not aware of its inception until their attention was called to it by a reader who had received the circular.

MEDICAL ADVERTISING.

THE following card cannot be commended in any sense. "Dr." Gill appears in the Medical Register as having the Licence of the Apothecaries' Society and as having received it in 1894. We trust that he will reconsider his titles and his methods.

> Dr. Gill's Surgery, 28, Stainsby-road (corner of Hind-street), Poplar, E. Hours: Before 12; after 6. Fees: Consultation and Medicine, 6*d*.; Visit and Medicine, 1*s*.; Midwifery, from 15*s*.; Vaccination, 1*s*. For many years Assistant to the late Dr. Sharp, of Guildford Road and Burdett Road.

Kasak.—It is not possible for us to give definite replies to our correspondent's queries. We recommend him to be cautious in what he says. Possibly his remarks would be held to be privileged, but this is a debatable question.

Medico-Chirurgico (London) has not complied with the regulations in regard to his name and address.

THE SKOPTZY.

THERE is, it seems, a very singular religious sect in Russia, whose chief tenet consists in castration. These ridiculous fanatics are said to be convinced that mankind can only obtain admission to Paradise in a mutilated condition, and consequently all males who join their ranks must submit to be deprived of their testicles, but whether the females have to undergo spaying or any analogous operation is not clear. According to M. E. Teinturier, who has written a book entitled "Les Skoptzy," these blind enthusiasts are tolerably numerous; but, happily, there is one good point connected with their particular form of madness—it cannot be transmitted hereditarily.

Carpenter.—The authority for tolling a church bell is to be found at the end of one of the prefaces to the Book of Common Prayer, headed "Concerning the Service of the Church." The direction applies to morning and evening prayer only. The Prayer Book is scheduled to an Act of Parliament, and is therefore of statutable authority. There is no direction whatever for the tolling or ringing of a bell previously to the celebration of the Holy Communion, and any such ringing stands, therefore, in just the same position as the ringing of a bell by any person for any purpose—neither more nor less.

"THE TITLE OF 'DR.'"

To the Editors of THE LANCET.

SIRS,—Dr. Donovan surely flatters himself when he says, in your last issue, that an L.S.A. has no more right to call himself "Dr." than a curate has to call himself Archbishop of Canterbury, as he thereby implies that there is as great a difference between an L.S.A. and an M.D. as there is between a curate and the Archbishop of Canterbury. When Dr. Donovan says that "the licence of the Society of Apothecaries gives its holder a kind of legal right to act as a general practitioner he is probably unaware that it is the same kind of right, neither more nor less, that an M.D. has, as an L.S.A. qualified since 1887 is qualified in medicine, surgery, and midwifery. I am sure many will agree with me that the degree or qualification a man holds is alone no criterion either to his professional abilities or his moral qualities. I myself have known several M.D.'s who display the grossest ignorance of their profession, and I also know several M.D.'s who resort to means to obtain patients which show a complete absence of all sense of honour or gentlemanly feeling. Of course, there are good and bad with all degrees and qualifications, but surely it would be more fair to judge a man by his actions and apparent abilities than by the letters he has after his name. As to title, it is my humble opinion that it is simply a matter of taste; it makes very little difference what a man has on his door-plate, as some most successful general practitioners have simply "Mr. So-and-so." It has struck me that several letters under the above title were written by men who have either been disappointed or are suffering from dyspepsia, and who would have been better employed doing something to prove their own superiority than trying in vain to prove the inferiority of men who are perhaps at least their equals, but do not happen to possess the same qualifications as themselves.

I am, Sirs, yours faithfully,

July 9th, 1895. L.S.A. Lond.

To the Editors of THE LANCET.

SIRS,—May I venture to ask space in your columns to reply to "M.D.'s" statement in THE LANCET of last week with reference to the new L.S.A. (Lond.)? First, "M.D." states that an L.S.A. is an apothecary, and that only. Now, I question very much whether "M.D." understands the meaning of apothecary, otherwise he could not have made so untrue a statement, as the apothecary is almost, if not completely, one of the past, as "M.D." applies the designation. To the second part of this statement I say an L.S.A. is a surgeon and entitled to style himself so. Secondly, I would remind "M.D." that the Society of Apothecaries are apothecaries in name, and name only, having the power to grant a licence in medicine, surgery, and midwifery—a triple qualification; and I ask "M.D." what body whose examination is a pass examination only has more power than to grant licences? Further, I would remind "M.D." that the persons who examine and thus grant the diploma of the Society of Apothecaries are not men who only hold a sort of legal right to practise medicine, but some of the leading and best surgeons and physicians in London. Thirdly, "M.D." states that the L.S.A. only holds a sort of legal right to practise medicine. Pray what more legal right, or any other right, has "M.D." to practise than the L.S.A.? Fourthly, "M.D." thinks the Society of Apothecaries should be done away with, as it is not wanted. I ask him, Are all the universities that grant a degree in medicine wanted? I think a few of the many universities in Great Britain that give degrees in medicine might with advantage be deprived of this power, and then perhaps the status of "M.D." would be higher than at the present time.

I am, Sirs, yours faithfully,

July 8th, 1895. A NEW L.S.A.

To the Editors of THE LANCET.

SIRS,—Will you kindly allow me to protest against the manner in which Dr. Donovan speaks of the L.S.A. London. When he says "it is quite time that the Society ceased to grant its licence" I take it that he considers the diploma too easily obtained, and that its holders are "inferior articles." To-day the Final L.S.A. is quite equal to, if not stiffer than, that of the Edinburgh College. True the holder of the latter diploma can affix almost half the alphabet to his name, whereas the former only gets L.S.A., but I think the L.S.A.'s chance of getting an appointment is no less than his Scotch brother's. Had an M.D. of a *good* university or even a conjoint (London) man wished for the abolition of the L.S.A., I could have bowed my head and remained silent, but under the circumstances I cannot, and am not ashamed to sign myself—Yours faithfully,

July 10th, 1895. L.S.A. LOND.

To the Editors of THE LANCET.

SIRS,—May I be allowed to protest against the tone of Dr. Donovan's letter in your last issue, which seems to me to be lacking in courtesy towards a large body of his fellow practitioners? When he states that the L.S.A. has "a kind of a right to act as a general practitioner" the sentence would have been more correct, as well as being in better taste, with the word "kind" omitted. He also seems to be under a misapprehension when he says that the Pharmaceutical Society has supplied the place of Apothecaries' Hall. Perhaps he is not aware that the L.S.A. is now a qualification that compares favourably with those granted by many other licensing bodies, and is not merely a licence for the compounding of drugs. The L.S.A. has as much, and no more, right than any other diplomate to the courtesy prefix of "Dr."

I remain, Sirs, yours faithfully,

July 8th, 1895. M.R.C.S., L.R.C.P., L.S.A.

To the Editors of THE LANCET.

SIRS,—Kindly allow me to say that there is no such statement in my letter as that which Dr. Keser imputes to me. I have not stated that the State examination in Germany confers any title. As Dr. Keser possesses Swiss diplomas I assume that he is Swiss. I have travelled a good deal in Switzerland, but have felt no temptation to draw medical models from that country. I can only attribute Dr. Keser's misstatement to an imperfect knowledge of our language. To this same cause may also be attributable his strong language on the State examination in his country, which can only reflect upon its M.D.'s who are prohibited from practising till they have passed this test of professional competency. I am, Sirs, your obedient servant,

July 9th, 1895. M. H. FEENY.

To the Editors of THE LANCET.

SIRS,—I confess that I am quite taken aback by the vigorous protests aroused by my statement concerning the L.S.A. and the title. I have so often heard the assertion made without contradiction—not only by men holding the diploma in question, but by others, who have referred to it as a great grievance—that I believed it to be a fact well known and unquestioned. Obviously, however, I must either substantiate my words or withdraw and apologise for them; and if you and my challengers will allow me until next week, or even the week after next, I promise that I will do one or the other.

I am, Sirs, yours obediently,

July 9th, 1895. NOT L.S.A.

EMBALMING.

WE have received from Mr. Halford Mills, of Cambridge-place, a pamphlet in which he directs attention to the advantage in some cases of preserving the dead body by the American method of embalming. For the purpose of conveying bodies of the dead to distant places embalming has been largely resorted to in the United States, and as there practised it is shorn of the repulsive features usually associated with this process. The system consists in the withdrawal of the decomposing gases and fluids and the thorough washing out of the circulatory system with an antiseptic and preserving fluid. In most cases a small opening in the arm is all that is necessary to accomplish this; and after the operation the corpse has an appearance which renders unnecessary any after "touching up," and the substance of the structure is preserved, as well as the lineaments of the countenance and complexion. As the fluids are extracted from the body, the corpse may be deposited in a wicker coffin without any of the unpleasant results which usually attend the use of such coffins.

Inquirer.—Applications for the appointment of prison surgeon should be made to the Prison Commissioners at the Home Office, Whitehall, S.W. (Secretary: Col. M. Clare Garsia), for English appointments, and candidates are selected on their merits. Surgeons in Scotch and Irish prisons are appointed by the same department, but under separate regulations.

LYSIDINE.

To the Editors of THE LANCET.

SIRS,—Can any of your readers give me some information as to the action of the new remedy "lysidine" in gouty affections? Does it produce any disturbing symptoms, and is its effect permanent or merely temporary? I am, Sirs, yours faithfully,

July 4th, 1895. A SUBSCRIBER.

Mr. T. C. Hubbard.—It would be difficult to take any action before identifying the medical men who are responsible. If there is any clue to them their names and their bills should be forwarded to the respective bodies whence they derive their qualifications.

M.P.S.I.—The board of guardians, who are on the spot and conversant with the details, ought to see that our correspondent is not wronged in the way that he considers himself to be.

PENALTIES ON MEDICAL PRACTITIONERS.

THE following amusing passage from *Health News* will show that even though the medical practitioner's life, like the burglar's, may not be an invariably happy one, yet times have changed for the better:—

> There was a time when physicians were bound to a strict attention to the welfare of their patients by something besides the consideration of their own credit and profit, for at Dijon, in 1386, a physician was fined by the chief magistrate fifty golden franks (as well as being imprisoned for a time) for not having completed the cures of some persons whose recovery he had guaranteed. And the beautiful Austrigilda, Consort of Gontran, King of Burgundy, was in the sixth century permitted by her husband, in compliance with her dying request, to have her two physicians slain and buried at the same time as herself. St. Foix, who chronicled this fact, omitted to mention whether this cruel deed occurred by way of punishment for their ill-success or out of her attachment to them. It has been suggested that this arrangement had the advantage of relieving the king from any indebtedness to those ill-used and ill-requited doctors, possibly a consideration which had some weight with the too indulgent Royal husband in inducing him to accede to his consort's singular request.

A Practitioner at Blackpool.—Judging by the facts as set out by our correspondent, we cannot but regret that such medical men as desire to do so should not be allowed to continue attendance on their patients when these are removed to the Blackpool infectious hospital. As a rule, the most advantageous plan is to favour such attendance, provided it is carried out at the cost of the patient and subject to the rules as to general control laid down by the local authority under the advice of their medical officer. Such a plan has often been found to do more than anything else to secure the admission of better-class patients, such as those in tradesmen's houses, who, by reason of their occupation, constitute a risk of infection to the public. But we are bound to admit that in some large hospitals this scheme is not found to work well, and hence the ordinary medical practitioner only visits cases in consultation with the hospital medical attendant. The circumstances of each individual town and district must settle which is the best line to be taken, and local opinion can generally best decide which method will tend to make the hospital most attractive to the public and most useful in preventing the spread of infection. In some towns medical men are by no means unwilling to get rid of attendance on the bulk of their infectious cases, especially if this can be done without the risk of the patients being handed over to a competing medical practitioner. We do not doubt but that a general expression of opinion, one way or the other, by the medical men practising in Blackpool would receive every consideration at the hands of the town council.

Perseverance.—The title is one of courtesy only. Our correspondent must judge for himself how far it should be adopted. The scale of fees must be dictated by the circumstances of the patients.

PROFESSIONAL RISKS.

To the Editors of THE LANCET.

SIRS,—In MAX NORDAU'S "Degeneration" (Heinemann's edition) occurs the following capital rendering of a passage which should afford food for thought in many particulars to busy practitioners of the healing art. It may well be left to produce its effect unaided:—

"In an exceedingly amusing French farce, *Le Homard*, a husband suddenly returning home one evening surprises a stranger with his wife. The latter does not lose her presence of mind, and says to the husband that, having suddenly been seized with illness she had sent her maid for the first available doctor, and that this gentleman was the doctor. The husband thanks the gallant for his speedy appearance, and asks if he has already prescribed anything. The gallant, who, of course, is not a doctor, tries to make himself scarce; but the anxious husband insists on having a prescription, so that the Galen, bathed in cold perspiration, is compelled to give one. The husband casts a glance at it; it consists of wholly illegible marks. 'And will the chemist be able to read that?' asks the husband, shaking his head. 'As if it were print,' asseverates the false physician, again trying to make his escape. The husband, however, adjures him to remain, and holds him fast till the maid returns from the chemist. In a few minutes she makes her appearance. The Galen prepares himself for a catastrophe. No. The maid brings a phial of medicine, a box of pills, and some powders. 'Did the chemist give you those?' demands the Galen in bewilderment. 'Certainly.' 'On my prescription?' 'Of course it was on your prescription,' replies the astonished maid. 'Has the chemist made some mistake?' interposes the troubled husband. 'No, no,' our Galen hastens to reply; but he contemplates the medicines for a long time and becomes lost in reverie." (*Vide* page 394.)

I am, Sirs, yours faithfully,

July 8th, 1895. PLACEBO.

"LIQUEUR ADVOCAAT."

IN regard to our analytical notice of this preparation last week, Messrs. Simundt, Slater, and Co. write that they are not, as stated, the original manufacturers, but the agents of the original manufacturers, Messrs. Kruijmel and de Wit of Arnehem, Holland.

MEDICAL ADVERTISING AT SOUTHPORT.

To judge from the *Southport Visitor* Southport seems a collection of hydropathic institutions, supported by advertisements in which the medical officers figure in a way that cannot be approved. The advertisements are jumbled together with that of a remedy for "restoring regularity in married women."

PRACTICE IN NEW ZEALAND.

To the Editors of THE LANCET.

SIRS,—Can any of your readers give me any information concerning medical practice in New Zealand? I am, Sirs, yours truly,

July 3rd, 1895. M.B. & C.M.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, July 11th, 1895.

Date.		Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
July	5	30·23	N.E.	59	56	107	68	55	0·04	Cloudy
"	6	30·22	N.W.	60	56	117	75	56	...	Hazy
"	7	30·21	S.W.	71	62	117	81	56	...	Bright
"	8	30·14	S.W.	69	59	125	84	59	...	Bright
"	9	30·04	S.W.	69	60	120	80	59	...	Hazy
"	10	29·93	N.W.	67	59	122	80	60	...	Cloudy
"	11	29·89	S.W.	64	58	114	71	60	...	Cloudy

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (1 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynecological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.).

TUESDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1.30 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Gt. Northern Central (2.30 P.M.).

WEDNESDAY.—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.).

THURSDAY.—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (2 P.M.), Soho-square (2 P.M.), North West London (2 P.M.).

FRIDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.).

SATURDAY.—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

WEDNESDAY.—NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3 P.M. Lecture by Dr. Gowers.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-sq., W.C.).—5 to 6 P.M. Dr. Morgan Dockrell: Syphilis.

SATURDAY.—ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—5 to 6 P.M. Dr. Morgan Dockrell: Lichen Planus.

During the week marked copies of the following newspapers have been received:—*Glasgow Herald, Sheffield Independent, Birmingham Post, Carlisle Express, Science Gossip, Irish Daily Independent, Scotsman, Times of India, Brighton Gazette, Builder, Liverpool Daily Post, Architect, Pioneer Mail, Yorkshire Post, North Star, City Press, Leeds Mercury, Wisbech Standard, Morning, Bristol Mercury, Midland Counties Express, Sanitary Record, Hertfordshire Express, Family Doctor, Provincial Medical Journal, Princess, Manchester Courier, Bristol Times, Nature, East-end News, Courrier de la Presse, Local Government Chronicle, Weekly Free Press and Aberdeen Herald, Hertfordshire Mercury, Mining Journal, Reading Mercury, The Gas World, Surrey Advertiser, Cape Times, Weekly Herald and North Middlesex Advertiser, North Wales Chronicle, Milom News, Southport Visitor, East London Observer, Guy's Hospital Gazette, Local Government Journal, Derby Mercury, Alliance News, Putney News, Midland Times, Rugby Advertiser, Kelso Mail, Preston Herald, Hawaiian Gazette, Umpire, Thanet Guardian, Sandgate Telegraph, North Queensland Herald, Tenby Observer, South Australian Register, Cambridge Express, Brisbane Courier, &c., &c.*

Communications, Letters &c. have been received from—

A.—Mr. E. Armitage, Wailuku Main, Hawaiian Island; Rev. J. W. Atkinson, Lond.; A. B., Bristol.

B.—Dr. A. Bronner, Bradford; Dr. A. M. Buchanan, Glasgow; Dr. D. Bargellini, Toscana, Italy; Mr. G. R. Baldwin, Lond.; Messrs. Burgoyne, Burbidges, and Co., Lond.; British Pharmaceutical Conference, Bournemouth, Secretary of; Borough of Lowestoft, Town Clerk of; Borough of Leicester, Town Clerk of.

C.—Dr. J. G. S. Coghill, Ventnor; Dr. Christoff, Varna; Dr. R. H. Coombs, Becford; Mr. A. Carney, Leeds; Mr. T. J. Croke, Harrogate; Mr. W. T. Colman, Steyning; Messrs. Callard and Co., Lond.; Chichester Infirmary, Secretary of; Chester General Infirmary, Secretary of; Clavus, Lond.

D.—Mr. J. D. Dixon, Newcastle-on-Tyne; Mr. H. G. Dixon, Lond.; Mr. J. Domakin, Manchester; Madame Dean, Lond.; Messrs. Douglas and Foulis, Edinburgh; Dorchester Asylum, Secretary of.

E.—Mr. B. Edwards, Birmingham; *Evening News*, Lond., Managing Editor of.

F.—Dr. F. Fox, Strathpeffer Spa; Mr. Foulerton, Lond.

G.—Dr. D. M. Gill, Haslingden; Mr. T. Green, Lond.; Mr. G. C. Grant, Rubery Hill; Globe Advertising Co., Lond.

H.—Dr. S. Hyde, Buxton; Dr. R. de W. Hutchinson, Bridlington; Dr. R. R. Holmes, Lond.; Mr. J. Heywood, Manchester; Mr. C. Hunt, Cheltenham; Mrs. J. J. Hundley, Brooklyn; Messrs. J. Hopkinson and Co., Nottingham; Messrs. J. Haddon and Co., Lond.; Messrs. Harvard and Co., Lond.

I.—Messrs. Ingram and Royle, Lond.; Idris, Limited, Lond.; Inquirer, Lond.

J.—Miss Jackson, Bedford.

K.—Mr. C. B. Keetley, Lond.; Mr. B. Kühn, Lond.; Mr. R. Kenward, Southsea; Miss M. H. Kelly, Paris; Messrs. Keith and Co., Edinburgh; Kasak, Lond.; Kindness, Lond.

L.—Messrs. Leader and Sons, Sheffield; Messrs. Lea Bros. and Co., Philadelphia; Messrs. Lee and Martin, Birmingham.

M.—Dr. W. Marcet, Lond.; Mr. R. Martin, Gilford; Rev. A. G. Morris, Roggiett; Mr. P. Möller, Lond.; Messrs. M. Masters and Sons, Lond.; Medical Society of Victoria, Melbourne, Hon. Secretary of; Medico, Lond.; Medico-Chirurgico, Lond.; M.D. Lond., London; M.A., Lond.; Mancuma, Lond.; M., Lond.

N.—Northcote House Hydro., Woodhall Spa, Manager of.

O.—Mr. J. G. Owen, Liverpool; Obstetrical Society of London, Secretary of.

P.—Dr. S. W. Plummer, Durham; Mr. Y. J. Pentland, Edinburgh; Mr. C. H. Powers, Gosforth; Messrs. H. W. and R. Pearson, Malton; Principal, Croydon.

R.—Dr. G. K. Richards, Paris; Dr. H. D. Rolleston, Lond.; Dr. R. R. Rentoul, Liverpool; Mr. H. M. Riley, Leicester; Mr. R. Redpath, Newcastle-on-Tyne; Royal Aquarium, Lond., Manager of; Romo y Füssel, Madrid; Redcliffe-square, No. 40, Lond.; R. B. F.

S.—Dr. J. M. B. Scatliff, Brighton; Dr. H. Snow, Lond.; Dr. Schacht' Lond.; Surg.-Capt. R. R. Sleman' Lond.; Mr. R. G. Stowe, Doncaster; Mr. J. Sampson, York; Mr. E. Stuart, Lond.; Messrs. Simundt, Slater, and Co., Lond.; Messrs. Slinger and Son, York; St. Mungo's College, Glasgow, Dean of; St. Thomas's Hospital Medical School, Lond., Secretary of; Salford Union, Clerk of.

T.—Dr. G. Thin, Lond.; Mr. J. Trant, Valentia, co. Kerry; Mr. R. J. Tate, Manor Hamilton, co. Leitrim.

V.—Mr. J. A. Van Horn, Hoopeston, Illinois, U.S.A.

W.—Dr. F. J. Waldo, Lond.; Dr. H. F. Waterhouse, Lond.; Dr. J. Williams, Cardiff; Dr. H. W. Webber, Rickmansworth; Mr. J. Willson, Sheffield; Mr. G. M. Winter, Torquay; Mr. E. Wilson, Exeter; Mr. C. A. Wickham, Willesborough; Messrs. White, Druce, and Brown, Lond.; Wolverhampton Hospital for Women, Secretary of.

Z.—Dr. J. Zuill, Kincardine-on-Forth.

Letters, each with enclosure, are also acknowledged from—

A.—Dr. H. H. Aitchison, Wallsend-on-Tyne; Dr. A. Abilbery, Johannesburg; Mr. H. Astley, Edinburgh; Mr. P. Armour, Kilmarnock; Anderson's College Medical School, Glasgow, Secretary of; Apollinaris Co., Lond.; A. B. C., Lond.; Alpha, Lond.; A. B., Sunderland; A. B., Lond.; A. J., Lond.; Aleph, Lond.

B.—Dr. L. S. Beale, Lond.; Dr. Boydell, Matlock Bath; Mr. G. Breeze, Tangier, Morocco; Mr. J. S. Buck, Eaton Socon; Mr. A. Boulton, Sutton-on-Sea; Mr. W. Bryce, Edinburgh; Mr. J. I. Baxter, Lond.; Miss Bennett, Lond.; Messrs. Benger and Co., Manchester; Messrs. Benson and Co., Lond.; Messrs. Burroughs, Wellcome, and Co., Lond.; Birmingham City Asylum, Secretary of; Battersea Rise, No. 57; Bathroad, No. 15, Chiswick; B.A., Lond.

C.—Dr. Collier, Bulwell; Dr. R. J. Colenso, Lond.; Dr. J. B. Coleman, Dublin; Mr. T. J. Croke, Beverley; Mr. J. G. Creasey, Wrotham; Mr. J. Carter, Lond.; Mr. H. Cox, Williton; Mr. E. W. Coatheape, Lucerne; Mr. F. Cufaude, Acle; Miss Canning, Lond.; Messrs. Curry and Paxton, Lond.; Messrs. Curtis and Son, Lond.; College of Preceptors, Lond., Secretary of; Coppice, Nottingham, Clerk of; Clavus, Lond.; C. C., Lond.; C. H., Birmingham; C. P., Lond.; Cicero, Lond.; C. H. N., Lond.; Cinchona, Lond.

D.—Mr. O. J. Davies, Ruardean; Mr. A. B. Du Prez, Port of Spain, Trinidad; Dorset County Hospital, Dorchester, Secretary of; Doctor, Lond.

E.—Dr. F. P. Elliott, Dymchurch; Dr. A. J. Edge, Maidenhead.

F.—Dr. T. H. Fiske, Aylesford; Dr. S. Fleming, Lond.; Mr. W. A. Frost, Lond.; F. J., Lond.; Forceps, Lond.; F. R. A., Lond.

G.—Dr. L. G. Guthrie, Lond.; Dr. D. M. Gill, Haslingden; Dr. P. Goold, Macroom, co. Cork; Mr. F. Goodeve, Birmingham; Mr. J. Guest, Manchester; Mr. J. Gay, Lond.; Mr. T. Green, Lond.; Mr. J. Grant, Napanee, Ontario; Messrs. A. Goodman and Son, Taunton; Messrs. Guyot, Guenin, and Co., Lond.

H.—Dr. G. Harley, Lond.; Dr. D. D. Harris, Carmarthen; Surg.-Lieut. Hall, Allahabad; Mr. J. T. Hislop, Ripley; Mr. W. T. Homan, Shinrone, King's County; Mr. W. A. Hardiker, Brymbo; Messrs. J. Halford & Son, Lond.; Hamilton Association, Lond., Secretary of; Hanover Institute for Nurses, Lond., Secretary of; H. W. V., Torrington.

K.—Dr. L. Kidd, Enniskillen.

L.—Dr. R. Liveing, Lond.; Mr. J. R. Lynn, Lond.; Mr. G. B. D. Levick, Pinner; Louis, Ballymahon; L.R.C.P., Lond.

M.—Dr. W. Maule, Southport; Mr. W. J. Macfarland, Smallborough; Mr. W. Mason, Southsea; Mater, Lond.; Medicus, Lond.; Medicus, Crewe; M., Lond.; Medicus, Keighley.

N.—Newcastle-on-Tyne Hospital for Sick Children, Secretary of; National Hospital for Diseases of the Heart, Lond., Secretary of.

O.—Mr. E. Owen, Lond.; Mr. A. W. Oxford, Lond.; Mr. R. Oxborrow, Norwich; Omega, Lond.

P.—Dr. R. G. Price, Carmarthen; Dr. J. P. Park, Beverley; Mr. G. H. W. Parry, Finedon; Mr. H. Potter, Ilkeston; Mr. F. W. Pilkington, Adlington; Pathologist, Lond.

Q.—Mr. T. Querney, Manchester.

R.—Dr. R. R. Ross, Rio Tinto, Spain; Messrs. A. Riddle and Co., Lond.; Messrs. Read and Donald, Perth; Rhonda, Lond.; Rus, Lond.

S.—Dr. E. Sutcliff, Torrington; Dr. D. McP. Stevenson, Bradford, Yorks; Mr. C. Simpson, Sheffield; Mr. C. L. Sansom, Lond.; Mr. S. P. Smith, Edinburgh; Messrs. W. H. Smith and Son, Manchester; Saarbach's News Exchange, Mainz; Sulphonal, Lond.; Surgeon, Grimsby; S. B. S., Lond.

T.—Dr. C. B. Taylor, Nottingham; Dr. T. Taylor, Kirkby-in-Ashfield; Mr. F. Treves, Lond.; Mr. J. Thin, Edinburgh; Mr. C. B. Taylor, Manchester; Mr. Thomas, East Love; Taunton Hospital, Secretary of; Thompson, Lond.; Tenax, Lond.; Theta, Lond.; Thomas, Lond.

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